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


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# The American Farmer.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT  
"AGRICOLAS." . . . . *Virg.*

Published by SAMUEL SANDS & SON, Baltimore, Md.

VOL. X.—No. 2.]

FEBRUARY, 1881.

[NEW SERIES.]

## Native Wines and the Growing Demand for them.

Markets Abroad—Originating New Varieties—Maryland's Soil and Climate.

*Messrs. Editors American Farmer:*

Looking over some statistics of the trade of the city of New York, I notice that the receipts of native wines during the past year (1880) aggregate over two and a half millions of gallons. About three-fifths of it (1,500,000 galls.) was California wine, and the remainder from other States. I notice another fact in this connection, and which those who are interested in trans-continental railroads and isthmus canals may ponder. Only 500,000 gallons of the California wine was transported overland; while 1,000,000 gallons was brought by the Pacific Mail Steamship Co. How much greater must be the disparity in freights when, by the construction of a canal, the transshipments at Panama and Aspinwall are avoided.

This trade of our great commercial metropolis embraces about fifty varieties of wine; and the market quotations for them (which are said to be now well maintained) range from one to three dollars per gallon. Judging from these figures in the trade reports of a single city, we may infer that the native wine interest is assuming considerable importance among the products of our country. As soon as you can obtain the information from the Census Bureau, I would thank you to publish the total amount of wine produced in the United States in 1879.

A few years ago the business was languishing. There was an over-production, especially of the *Gallised*, or watered wines; and which should never be put on the market except as paltry wine—(*Piquette*, as the French call it.) Many vineyards were uprooted, and even in California the growers of all but the raisin-making grapes were discouraged. Such vicissitudes will sometimes overtake all branches of industry, and especially the production of such articles as are considered luxuries.

In the pursuit of agriculture, I am disposed to think that the only crop of which we can never have too much is—*grass*. Our corn crops have

sometimes been so large as not to pay the cost of production. But for the unusual scarcity in foreign lands, our immense wheat crops of recent years would be rotting in barns and elevators; and our farmers—now, as a class, so prosperous and contented—would still be the slaves of debt and poor in the midst of plenty. Wide spread famines in Asia and Europe—causing an unprecedented demand for our breadstuffs—have brought untold millions of gold to our shores. This it is which has raised our farmers from the depths of debt and despair. Some of our Solomons say that John Sherman and *Resumption* did it. Here is where the laugh should come in. But we may not expect a continuance of such favoring Providential events. And those life-giving streams which have flowed from the bounteous breasts of America for the nourishment of two continents may be exhausted, and her own children may be crying for food. What then? Perhaps some bold-speaking Greenbacker will say—"contraction did it."

But I am wandering from my subject; a bad habit into which we often fall in our later years. Before returning to our wine, however, let me say just this: Political parties are controlled by "rings" of selfish men. The rings are controlled by the capitalists of the country, whose wealth is now colossal. On most subjects of legislation, the interests of the capitalists and of the tax paying masses conflict. Look for instance at the present struggle in Congress over the pending Funding Bill. How clamorous is capital to saddle us with a high rate of interest. *Ergo* it behooves farmers to learn to see farther, think better and act more in concert if they would not have the profits of their harvests legislated away or sunk in railroad pools, &c., &c.

The present boom in American wines is, I suppose, partly due to the improved quality of our vintages, but chiefly to the ravages of the *Phylloxera* in Europe. But if America has given to France, Germany and Spain the insect pest which is destined to destroy their vineyards, the wine drinkers of the world may be assured that she is also capable of making good any deficiency in the production. A year ago orders were sent from France to the principal markets of the world, for the purchase of all the Zante currants

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that could be found. These and other fruits were doubtless used as a basis for wine making. Now, it seems, that European wine merchants have wisely concluded to import our long disparaged wines; and ship loads have been sent from San Francisco. Much of this, by the simple legerdemain which is practiced in affixing a label, will be converted into *foreign* wine and re-exported to this country. But this dodge cannot long succeed, and in view of the rapid increase and growing popularity of our native wines we may reasonably conclude that we have heard the last of Mr. Leon Chateau and his reciprocity treaty. To show what our wine crop is probably destined to be in the near future, let me quote a few lines from an address delivered recently by Mr. Shorb, the President of the Southern California Horticultural Society. He says:—"There are now nearly 50,000,000 bearing vines in the State, and twenty years hence we shall have as many as France had in 1875, when she produced 2,190,000,000 gallons. What shall we do with such an enormous production? We can and do produce better wines at less cost than France can now; and when by the close of the present century America's population reaches eighty millions, and they have learned to drink wine instead of beer and whiskey, we shall consume all that we produce."

In the above estimate, Mr. Shorb does not appear to have included the future production of the States on this side of the continent; and which in my opinion, will equal if it does not exceed that of the Pacific States before the close of the present century. My reason for so thinking is this:—The wonderful production of California wine has heretofore been derived mostly from European varieties of the vine; and which, if no remedy for the Phylloxera is discovered, must ere long disappear from the face of the earth. For those *native* vines which resist the attacks of that insect (*iron-clads* so called) our soil and climate are as well suited as that of California. And then we of the east must long continue to enjoy this advantage, viz: the best markets for the products of the continent will be on the Atlantic seaboard. People may continue to go west, but the surplus products of their labor must come east. The farther the tide of immigration rolls inland, the heavier will it be weighted with costs upon its industries.

A late number of the *Sonoma Index* congratulates its readers that a vineyard of Clinton grapes recently planted in a district then particularly infested with Phylloxera, was in a vigorous and healthy condition, though the roots of the vines were completely covered with the insects. It adds that this successful experiment will give a fresh impetus to the viticultural interests of the Sonoma valley. It would seem from this, and other statements concerning viticulture in California, which occasionally crop out in the papers of that State, that our brothers on the Pacific slope will have to rely on our native vines. Fortunately there is now a vast number to select from, and many new vines are being produced every year—most of them, however, possessing but little value for wine. Out of the hundreds to be found in the catalogues of the nurserymen but few indeed will yield a wine that will keep, without the addition of sugar or spirits. In this

respect the vines of Europe are no better; and most of the wines they produce are doctored. It is no secret that at least twenty per cent. of brandy is added to the wines of Madeira, Spain and Portugal. But we have at least half a dozen vines from which can be produced wines of the first quality. Others quite as good or better will doubtless be grown from seed, as there are now many intelligent and patient laborers in this field of discovery. Some varieties, once extensively cultivated, will be abandoned, and the fittest only will survive. In Europe also new and healthy varieties are being sought for by sowing seed, to replace those which are being destroyed, and the original parents of which may have been produced in the days of Virgil or Pliny.

Thirty years ago I spent a pleasant autumn afternoon with Mr. Longworth, among his vineyards on the hills near the city of Cincinnati. Our conversation was chiefly about vines, and the business of wine-growing in which I was then about to engage. Though the luscious Catawbas were hanging in abundant and perfect clusters around us, my venerable companion insisted that better varieties should and would be found; and he urged me to sow some seed every year. He thought this was due from young devotees to the art of wine growing. But when I reflected that from a bushel of seed not one vine better than the Catawba might be produced, I confess that I was deterred by the magnitude of the undertaking and the uncertainty of the results. Five years ago (in 1875) I pressed some Clinton grapes under the back porch of my dwelling, in order that the wine might be conveniently transferred to the cellar. In the work of removing the pomace a great many seed were scattered about the porch and were finally swept into its earthen border. The next spring vast numbers of them sprouted and grew vigorously. All were pulled up and thrown away save one that happened to stand near a pillar of the porch. That one I allowed to grow, intending to utilize it for shade. Last year it yielded its first fruit—a *White Clinton*, of much promise for wine. I seldom look at that vine now, the product of a chance sown seed, without thinking of Mr. Longworth's advice, and feeling some self reproach that I have done nothing to increase the stock of good vines.

The business of wine growing in America will have its *ups* and *downs* in the future as in the past, but it will gain strength with every step of its progress. Next to sheep raising it is the most ancient of human industries. It is no new thing even on this continent. The first explorers of America found wild grapes on all our coasts; and as far back as 1564, according to the testimony of Sir John Hawkins, a considerable quantity of wine was made from a native grape in Florida. The first systematic efforts in vineyard culture were attempted about the beginning of the present century; but the early cultivators made the mistake of planting *foreign* vines, and failure was the consequence. Major Adlum, of Georgetown, Mr. Longworth, of Cincinnati, and a few others had the sagacity to substitute the best native varieties; though it was not until near the middle

of the present century that any American wines were produced that could compete with those of Europe. And to Mr. Longworth and his co-laborers belongs the honor of attaining that result. Since then the cultivation of the grape has spread from the Ohio valley into many States, and it is now conducted with more skill and intelligence than ever before. Wherever a market has been established, there the grape has been made to grow. Wherever wine companies have been formed, there the business of both grower and wine makers has prospered. Why cannot such a company be formed in Baltimore by some of our wine merchants? They could not devote their ample cellars and capital to a more profitable business. No State has a better soil or climate for grapes than ours; and if a wine company in your city would agree to pay the same prices for grapes which the Monticello Wine Co. offers to the farmers of Albemarle, the county of Anne Arundel alone would soon supply millions of pounds. I have nothing to urge against other localities; but I must affirm that for fruits of all kinds, and especially the grape, I have never found a better soil than the sandy loams on the Chesapeake and its lower tributaries. Nor could there be a more favorable climate than that which envelopes this region. Damaging frosts occur as frequently south of the Potomac as north of the Patuxent. Our mean temperature is preserved by our proximity to that great inland sea, the Chesapeake Bay, into which the warm waters of the Gulf stream are constantly surging. Then again, following the line of the Potomac Railroad, there is a wide and continuous belt of pine forest which break the force of the worst winds from the lower tide water lands. These great natural advantages, together with our cheap water lines of transportation (not to mention our fish and oysters) must eventually make this one of the most populous and prosperous sections of our State. It is flanked by two great and growing cities, connected by the railroad just mentioned, and it is destined to become a great vegetable and fruit garden for the supply of both.

It is a remarkable circumstance that the thermometer has been lower at Galveston this winter than at Annapolis. After our late experience, the map makers will have to draw some new and queer looking isothermal lines. By the way, there is a very conspicuous absence of reports and letters from Florida just now. I expect the orange fever on the St. John's, like the yellow fever, has been nipped by the frosts. The fruit growers of the United States will be slow to publish the injuries inflicted by this unprecedented winter upon their orange groves, orchards and vineyards. But when all the facts do leak out, I shall be surprised if this region does not have the smallest bill of damages. What fruit but a persimmon could resist the continuous severity of weather (from 10° to 40° below zero) which has prevailed in the western and northwestern states?

I read too in the Baltimore papers of to-day (Jan. 12th) that there is *ice in the Rio Grande*. So that river is cold at last! No announcement about the weather has pleased me more. I am really delighted to learn that there is ice in the Rio

Grande; and so will be all those who, fever stricken upon its burning banks, were ever compelled to drink its yellow waters. I once saw ice on the Rio Grande in midsummer, but it cost a great deal of money to see a little lump of it. It was for sale in the hold of a Yankee schooner. There were no *sanitary commissions* in those times; not even ice cream on the 4th of July or a turkey dinner at Christmas.

But I must close this rambling communication. When I began to write I intended merely to take a glance at the wine producing industry of our country; and if I continue I may be tempted to look over into other fields.

I have been much interested and instructed by the pages of your journal during the past year, and am pleased to find the old Pioneer always abreast of the best of its cotemporaries. Indeed, in some things you have led them all. For, example, in your valuable letters from France, the whole subject of *ensilage* was discussed and explained to your readers many months before it was noticed in any way by the papers which have since had so much to say about it. For myself, I should be much pleased if your correspondent in France would tell us what he knows or can learn of the extent of the manufacture of artificial wines in that country. Certe and Bordeaux were formerly, and perhaps are still, the headquarters of the wine counterfeiters. Wishing you much success in the year upon which we have just entered,

I am very respectfully yours, L. G.

Anne Arundel Co., Md., Jan. 12, 1881.

P. S.—If space permits, perhaps the publication of the circular issued last year by the Monticello Wine Company may interest some of your readers. If I could be assured of receiving such prices for the next ten years, I would plant the whole of my farm in grapes. That there is a good profit in the business for a company at these prices may be inferred from the fact that there is no considerable stock of *old* wine now at Charlottesville. But few of our farmers can afford to build cellars, &c., and wait for the wines to mature. Cannot some of your merchants be induced to make a market for grapes?

**Office of Monticello Wine Company, |  
Charlottesville, Va. |**

This Company offers the following prices for wine grapes delivered at its cellar in the suburbs of Charlottesville. Standard on the Saccharometer and corresponding prices:

*Concord and Hartford*—60° to 65°, 1 cent; 65° to 70°, 1½ cents; 70° to 75°, 1½ cents; 75° to 80°, 2 cents; 80° and over, 2½ cents per lb.

*Ives*.—Same as above with benefit of 5 degrees.

*Delaware, Catawba and Diana*.—70° to 80°, 3½ cents; 80° to 85°, 4 cents; 85° to 90°, 4½ cents; 90° and over, 5 cents per lb.

*Norton*.—85° to 90°, 3½ cents; 90° to 95°, 4 cents; 95° and over, 4½ cents per lb.

*Alvey*.—Same as Norton with benefit of 5 degrees.

*Clinton*.—80° to 85°, 2 cents; 85° to 90°, 2½ cents; 90° and over, 3 cents per lb.

"Special kinds not enumerated by name, there being but few of them, will be classified accord-

ing to merit, under some one of the above classes.

"Norton, Delaware, Catawba, Diana, Alvey and kindred character are the grapes most desired, and these will vary in price, as will be seen, according to quality of must yielded as indicated by Saccharometer, measuring exactly the quantity of sugar in the juice when pressed. Concord, Ives and Hartfords are the lowest grades for wine, the prices for which will not justify shipping from a distance, though remunerative when raised near cellar. The promptest delivery at cellar after gathering is essential. If sent any distance it should be in well-cleaned whiskey barrels, with open head covered with sacking. They should be put in loosely and not shaken down, when they will contain two to two hundred and fifty pounds. Growers must bear in mind that grapes for *wine* must be perfectly ripe; that the sugar is mainly developed *after* they are ripe for table use; that on this depends their value, so that if neglected, the finest looking grapes will disappoint the grower. To attain a proper range on the scale, the grower should be careful when gathering to remove unripe or rotten berries, which injure the most and diminish the value of the whole lot.

"It is impracticable to utilize fresh juice shipped from a distance, and useless for parties to correspond with the Company on that subject."

### Advantages of Maryland and Capabilities of her Lands.

Maryland, little Maryland, lying like a wedge between Pennsylvania and Virginia, divided into two by the noble Chesapeake, with nearly as much water as land, diversified by mountain and plain, her largest rivers rising in the highlands of Virginia and Pennsylvania, her large streams, indentations of her magnificent bay, her smaller streams permeating every part of her, affording every necessity for agricultural requirements, her bays, estuaries and rivers filled with fish, oysters, ducks, geese and swan; abounding in limestone in every locality, or where the stone fails oyster shells will supply its place; her railroads, her canal, her rivers and her bay giving every facility for commerce for removing crops to a most favorable market; her chief city open to the northern lakes and to the great west and to the south; her mercantile marine bringing among other things abundance of cheap phosphates to supply the principal deficiency of her lands.

Her people, disciplined by misfortune, made up of all races, ready to welcome the new comers as friends; her uncultivated lands abounding in wood and water, and requiring only labor and capital to render them productive; with schools and churches existing in every district in the State, with every form of worship free—toleration everywhere; her marsh deposits and marsh hay properly manipulated affording facility for improving land and sustaining cattle.

The State everywhere offers inducement for investment in our lands in competition not only with the great west but also with neighboring states either of the north, south or west, to all

men either rich or poor. Her improved lands yield to progressive agriculture 100 bushels of corn, 35 of wheat and 3 tons timothy. Her impoverished lands, abounding in timber and water, purchasable for five dollars per acre, yield readily to good management with phosphates, and can be profitably brought to a high and paying yield. It surprises Marylanders that a State so abundantly supplied, so rich in all the inducements to agriculture, with such facilities of transportation as compared with other States, with land so cheap, should be passed by in the stampede from Europe. We have already shown how easily capital can raise our outlying lands into profitable productiveness. While we uphold little Maryland for her many advantages, and claim that capital applied to her lands can more than equalize her in competition agriculturally with any part of the world—we admit she requires phosphates and management liberally supplied.

The cream is being skimmed off our rich western lands. They are certainly, as it were, increasing their distance from our eastern markets, and it will be a long time before they make markets at home. The large farms will yield to pressure of population and be cut up, and wheat cannot be continued to be grown for fifty cents at home. As population increases, grain must rise, as capital multiplies and quadruples itself, its gains will lessen, until it finds itself absorbed in improving land at three per cent., particularly in the readily yielding Maryland lands, abounding in everything save phosphates, in every facility for removing crops and everything else to or from the farms.

The water itself can also be made to pay as well as the land. Oysters, fish, ducks, &c., already abound. Our scientists are showing the extreme prolificness of the oysters and the fish. With care our waters are inexhaustable. We can raise either fish or oysters in the water as well as grain on the land. Our Legislature will, after awhile, make it possible for farmers to discover the exact needs of their land; they will inaugurate the means for the discovery of all frauds in fertilizers, they will place it in the power of every farmer to find the precise article his land requires, whether simple or compound; whether it is better to settle amidst a population fixed with all the appliances of civilized life, with a favorable climate, with timber abundant, all sects tolerated, compared with a country without timber, schools or churches; cold; soil rich and adapted to wheat, grass and oats, but too cold for corn; transportation expensive, costing from twenty-five to thirty-five cents to an eastern market, depends upon the finances of the party about to choose. If he possesses sufficient means to improve impoverished land, here is the place to settle. If his finances are small, he can probably do better out west. It is not the question what farmers can do on the eastern side of the Alleghenies to live. With thirty cents in their favor on a bushel of wheat, we can double the yield of our crops by improving our lands; we have decided advantages on all other crops, such as corn, hay and truck crops.

We still hold the home market. Let us enrich our lands to the full extent of our capital,



and confine our efforts according to our ability to enrich, selling all we cannot fertilize. In this way we can successfully compete with the whole world. We cannot enrich our lands without feeding cattle or supplying their place by using marsh mud. It is better to employ both in combination with phosphates for rapid improvement. We are not alluding to limestone lands, or lands already highly improved; we embrace the lands lying along our rivers and bay, where marsh grass and marsh deposits are abundant, furnishing food for both cattle and land; and, in combination with fertilizers, inexhaustible resources for restoring land to a high state of fertility. It is in these localities where land is cheap—all that is required is labor and capital. A.

Baltimore Co. Md.

[Our correspondent tells the whole story in the smallest compass, and supplements all that our friend Davis has so well said in his communication in our January number, and our several correspondents in Anne Arundel and other counties have presented in this, as to the advantages in this State over those of the far West. Mr. Holman, of Va., and Mr. Witherspoon, of S. Carolina, and we could add a host of other testimony as to similar advantages of both the Virginias, N. and S. Carolina, as well as little Delaware to the north of us, to prove that the milder Southern States open greater advantages to those seeking cheap and profitable lands than those of the West can offer.—*Ed. Am. Far.*]

### Husbandry Jottings.

The good book says "there is nothing new under the sun," but it does not say that man must not die. One generation comes and passes away, and another succeeds. A man's knowledge passes away with him; so if some one did not speak or write of passing matters, ignorance would prevail. Hence the propriety of placing the theories and practices of different callings in print. Let us look with pleasure on the past and hopefully to the future. One who has been in an occupation awhile, looks back with delight as he views his course step by step. It is not the majority that are of great wealth or renown, but many have achieved an independence, some obtained a living and held on to their outfit. This compares with other callings and trades and professional careers; as a general thing few commence on a large scale; those that triumph climb the ladder round by round. Business is business, and is governed by principles and perfected by practice.

Farming proper is the cultivation of the soil. Sometimes farming and grazing are combined, also farming and hay making. One living near a city has great advantages; he can procure fertilizers, natural and artificial; his products can be carried to market expeditiously; he can take advantage of the markets. The same can be said of the milling and dairy business. When more remote, it is questionable whether the grain

production pays so well—the facilities to market are more tedious and slow. If aided by railways, the freights where not regulated by law will be handicapped by high rates.

It would seem then that grazing, especially at a distance, meets with less difficulties in transporting products, and more distant from cities is cheaper, living is not so expensive. More and better manure can be obtained from the straw and fodder when fed under shelter with ground or unground grain. If well sheltered and protected from storms, the same food will make more and better beef. As to the different breeds of cattle, those preferred for milk are the Jerseys and Ayrshires. For beef the Hereford and Short Horns. There are many cattle, besides, that answer for various purposes, and are suitable for different localities and soils.

Sheep are esteemed for mutton; their wool is a marketable article, their skins are made into leather, and is much needed in the trades.

With farming, as with every thing else, time, attention, labor and means are required. No half way business ever pays.

The early winter suggests the necessity of shelters and ample provision of esculents for stock. If ordinary ways and means pay, how much more would a full line of all the necessities and comforts pay? Men can be penny-wise and pound-foolish. Every one should take a pride in his vocation as well, then his calling and election would be sure. Some men are unfit for any kind of business, some are respectable in one kind, some combine with their branch financial ability, and some are jacks in all trades and excel in none. Let every one be on the *qui vive*, and be abreast with the best approved methods, and to use a vulgar expression, "not to suck the hind teat." Don't think friends that I am personal, I am inclined to obey the grand old poet who said:—

"Be thou the first true merit to befriend,

"His praise is lost who waits 'till all commend."

Jefferson Co., W. Va.

PHILO.

### Economy in Composts.

Messrs. Editors American Farmer:

Carelessness seems to be a virtue with all farmers in proportion to their success, especially with regard to composts. The trucker recognizes their importance in the production of early vegetables. But Peter Henderson assures us that "barn-yard manure" is directly applied to garden culture in New York; no doubt the drouth there last year retained such manures in the soil as a nuisance, and only valuable for the next crop. "*De minimis non curat prex*" was the witty perversion of the old proverb, "when the Dominic threw the minnows away while catching trout."

The extremes in husbandry are those most easily managed with reference to economy. When a man is compelled to "work with his men" their labor does not pay if small matters divert his attention; whereas, on a small cultivation he is independent of hired assistance, and can attend to the minutiae. Thus it is that farmers differ so much as to the economy of



composts. What is demonstrated to be the fundamental element of success on one farm, may be as "paying too dear for the whistle" on another. Some can produce butter for twelve cents per pound; whereas others assure me that every pound they make in winter costs them fifty cents, though they have seven times as many cows.

If so, the salvation of *all* the ammonia—which refuse is capable of producing—may not be as economical as the *part* which may be retained in the usual rude application of manure.

The composts should be regarded as the artificial stomach for digesting plant food, or fitting it for the functions accorded to surface soil; or the peculiarity possessed by virgin soil, or "leaf mold." There is, however, no *apparent* reason why the soil that is saturated with all the elements of manure from a dark cellar should fail to stimulate seed in a seed-bed, while that on a compost exposed to the sun is most productive, though not so rich—both being used for the same seed and under the same frame. Such facts must be accepted though beyond our reasoning, also the peculiar change which inevitably is produced by the cultivation of melons on any area that utterly unfits it for their successful culture there during the next season, though a new soil be supplied to their roots. Because we admit our ignorance as to such causes, some assume that we should admit the influence of the moon, but "*post hoc* is not *propter hoc*" in all cases equally, though very intelligent farmers still believe in the moon's influence.

The abundant and convenient supply of those peculiar elements which characterise an artificial nitre bed must ever determine the *economy* of composting "manure;" as its most economical application in Europe is demonstrated to be its direct application from the stable to the "cultivation."

Nitre beds are as old as the hills, but the use of lime in this relation was perhaps empyrical even with Napoleon, who being cut off from the natural nitre beds of India by the English ships, was compelled to get nitre from composts. This fact suggested to me the idea of the importance of the catalytic influence of lime in ordinary composts about thirty years ago, when I was employed to devise a mode of utilizing the offal of slaughter houses, and secured a patent therefor. In the last number of *The American Farmer* I notice that this catalytic influence of lime as applied in agriculture is now admitted, in accordance with several essays on the subject which I published suggesting this as the most rational mode of accounting for its fertilizing influence.

I was driven by a process called exclusion to assume this as the most important influence which lime enacts in agriculture, viz: It is absurd to apply it as a manure if all our soil naturally contains double as much as the most fertile soil in Ohio, and that only yielded three-tenths of one per cent.

Again it is almost equally absurd to accept the common notion, that lime changes the consistency of soil if one-tenth of one per cent. of the soil is equivalent to one hundred bushels per acre, and only half that number is applied in

three or four years rotation. We can, however, understand and demonstrate how lime, by its mere presence in *certain proportion*, enables the plant to assimilate its food, and determines the rapid decay of vegetable matter, also the formation of ammonia therefrom in the composts, if properly stratified.

If then we are driven to the conclusion that the fertilizing influence of lime is *mainly* due to its mere presence in the soil in a *certain proportion*, viz: its catalytic influence as a strong base, it is manifest that it should be applied with the manure, and as near to the growing plant as possible, in order that the *relative proportion* of this strong base may be insured. It is admitted that it is impracticable to manure *all* the soil with phosphates, and upon the same principle, lime is most economically applied through the medium of a compost, but as before intimated, its employment, as also that of composts, is most economical where it abounds as *refuse*. It is doubtful whether oyster shells can be ground *economically*, but all calcareous marls may thus be re-duplicated in value, viz: by alternating with manure and other offal, either in the barnyard or composts.

Of course burnt lime, or calcined limestone, is utterly unfit for any such purpose; but marl, chalk, or powdered shells, may be stratified with ammoniacal manures or those animal and vegetable substances which are capable of yielding ammonia, though it is stated in the last *Farmer* (above quoted) that *carbonate* of lime is incompatible with ammoniacal manures. So if sal-ammoniac, or any salt of ammonia be *heated* with chalk or whiting, it will evolve carbonate of ammonia, but at ordinary temperatures, its escape is not detected, even by the muriatic acid fumes when the stopper is held over a lump of chalk saturated with a strong solution of sal-ammoniac. Moreover, the plaster between the bricks of the stable wall attracts and *fixes* the ammonia which escapes from the neighboring dung heap. Thus we find the plaster covered with crystals of nitrate of lime, pointing clearly to the value of lime in the formation of composts.

DAVID STEUART, M. D.

Port Penn, Del., Jan. 3d, 1881.

### German Millet and Stock Raising in Eastern Va.

Messrs. Editors American Farmer:

The writer has been cultivating the German Millet for several years, and finds it an exceedingly valuable forage crop. When seeded on a suitable soil it yields a heavy crop, ranging from two to four tons per acre. The quality of the hay is excellent, being strong and nutritious.

The soil best adapted to its growth is a rich clay loam. It requires a moist soil, and it succeeds best on bottom lands. It does not seem to grow well after a corn crop, and a fallow is preferable. The land intended for its cultivation should be broken during the fall or early spring, and just before the time of seeding, it should be re-fallowed, and otherwise treated until it is put in a condition of perfect tilth. The best time of seeding it, is from the first of June to the first

of July. The quantity of seed used, depends upon the condition of the soil. If the seed are thoroughly matured and well cleaned, and the soil well prepared, three gallons per acre will be sufficient; but, if the soil is rough and cloddy, it will take half a bushel or more.

The seed seem to be very delicate and do not germinate well, unless the conditions are all favorable. There should be considerable moisture in the soil, which should be reduced to a fine tilth, and the seed should be covered slightly by the soil; being either raked in with a fine light rake or gotten in with a brush. If put in deep, the seed will not come up well. When the crop is intended for hay, it should be cut a week or ten days before the seed are ripe; but, when intended for seed, it must be allowed to become thoroughly ripe. The crop is easily cured, and if the weather be suitable, will be ready for stacking in a few days.

The German Millet makes excellent hay, being strong and nutritious, which is evident from the large quantity of seed that it yields. Generally stock do not eat it very kindly at first; but after they become accustomed to it, they get to be very fond of it.

Here in Eastern Virginia, the German Millet may be made a very valuable crop, and is destined to supersede the oat crop, in a great measure. The oat crop has become a very uncertain one here. Our climate does not suit it, being too warm and dry. It is true that the winter oat does very well when seeded in the fall, and is not killed out by the winter; but, the spring oat has played out almost entirely. On the other hand the Millet crop is liable to few or no disasters, and scarcely ever fails. A few acres of the rich creek or branch bottom, that are found more or less abundantly on most of our farms here, will yield more forage than large fields in oats.

Again, our main staple crop, tobacco, has been selling so low, during the last three or four years, that we cannot *continue* its cultivation, and we are bound to resort to some other industry as a substitute. After a careful review of the field, I can see nothing that promises better than stock raising; but stock raising necessitates *hay raising*, and German Millet is the thing for that. But, the old fogies say, this is not a grass country, and stock raising will not pay here. This is a great mistake; stock raising may be made very profitable here. It must certainly be more so than the tobacco crop. Many of the grasses can be grown here very successfully, whilst the root crops, such as turnips, beets and carrots, may be produced abundantly. I have seen turnips grown here, weighing 11 pounds. Why, our broom-straw fields, which used to be a standing reproach upon the country, and a sure evidence of unmitigated poverty, can be profitably utilized in this direction, for they afford excellent pasturage, especially for sheep. When the old straw has been burned off, as it should be during winter or the early spring, the young plant springs up and grows off rapidly, and whilst young and tender furnishes good pasturage, not only for sheep, but for cattle also. It causes the milch cow to yield a good flow of milk, capable of yielding a rich yellow butter, equal to that obtained from clover. These old-

field broom straw lands can be bought here at from \$3 to \$5 per acre.

Sheep husbandry might be made very profitable here. These broom straw lands are so abundant and cheap, and our climate so mild, that sheep may be subsisted nearly the whole year around without feeding. I have known investments in sheep to pay 100 per cent. the first year.

Returning to the subject of Millet, I have observed several errors in the Agricultural press, touching its cultivation, which I will take the liberty of correcting. I have seen it stated, that it takes one bushel and more to seed an acre. As before said, when the seed are good, and the soil well prepared, three gallons will be sufficient; and again, I have seen it stated that two crops may be made on the same land in one season. It requires about three months to mature this crop, and it does not grow off well, if seeded before the first of June. The second crop will not, therefore, have time to mature. It is further stated, that it can be seeded as late as the first of August. If the soil was very rich or a stimulating fertilizer used the crop might come in when seeded first of August; but, ordinarily it would not be safe to seed the crop later than the first of July.

Somehow or other, it has gotten to be the general opinion, that Millet is a great exhaustor of land. I have observed its effects upon the soil very closely, and I have discovered no evidence of such results, and I do not believe that it is a greater exhauster than oats or other forage crops.

Cumberland Co., Va.

WM. HOLMAN.

P. S.—Please say to any of your friends or patrons, who may desire to find cheap and comfortable homes in this goodly land, the James River Valley, to come on now. They will find in Richmond, the "Iron Horse," in daily readiness to bring them here. The miserable old canal is dead, and in its stead we have the Richmond and Alleghany Railroad, now penetrating the heart of this fine region.

W. H.

[Our correspondent, Mr. Holman, always acceptable, furnishes in the above communication some useful hints upon a subject to which we have so frequently called the attention of our readers. And as it is evident that the demand for our meats abroad is destined in time to be almost without limit, every farmer should prepare to do his best towards furnishing the means for the extension of our commerce, whilst at the same time he will be improving his own land and adding one of the most agreeable branches of his profession to his own system of husbandry. All who engage in stock-raising judiciously and intelligently, are always found to be the most forehanded among their class.]—*Ed Am. Far.*

THE STEAMSHIP FRANCE reached New York last month with the largest importation of blooded stock that ever arrived at one time in this country. It consisted of an Arabian stallion, called Peter the Great, thirty-seven English race horses, mares, fillies and colts, eight pure bred Jersey heifers and three bulls.

### Flax Culture.—II.

#### *Editors American Farmer :*

In my last I furnished proof to your readers that in England a market exists for upwards of twenty million dollars worth of flax and linseed annually if sent there by the farmers of this country; let me now endeavor to make plain the "rough and ready" way of managing the crop spoken of also.

First as to sowing:—In England we do this in March and April, but I have noticed that the early sown is invariably the best. Let the surface soil be as fine as possible, the land having been deeply ploughed during the winter, and every means used to keep all weeds from germinating as much as possible. Sow broadcast two bushels to the acre, and bury the seed about an inch deep, using a very light harrow, and finishing with a light roller. Do not trouble about weeding, it is an expensive process.

Cut it with a mowing machine set close to the ground, and when about two-thirds of the seed is sufficiently ripe to rub out easily with the hand; if left until all has ripened, the best of the seed will be wasted in harvesting. Harvest it as you would a clover crop, so that it may receive but little handling, and as little sun as possible. Do not attempt to stack it too soon, as no crop will heat quicker if put together in a green state. You cannot make any mistake about this if you do not hurry too much, but when dry, the sooner it is ricked or housed the better. A month or two in this state improves both seed and fibre, after which thresh it with any ordinary machine, which should be set as lightly as possible, so as not to break the straw more than can be helped.

And now in regard to steeping:—This may be done in any running stream by damming, so as to have a depth of three or four feet. Leave a small opening at bottom of dam, to be closed effectually after the flax straw is placed ready for steeping. Cover the straw with rails and heavy stones before closing the opening, so as to keep it well under water. This requires care, and to be done thoroughly, otherwise the flax straw will rise above the surface, and only a portion of it be rotted, a thing you can never remedy afterwards. And now comes the part so difficult to describe on paper, viz: how to judge when it has had enough rotting or steeping, at the same time this being a "rough and ready" process, we must work by rule of thumb, and not be over nice about it. In about ten days the straw, if rubbed as a person would do when trying if there was any "size" in a piece of cotton cloth, will part with the boon or shrove (the inside of the plant,) leaving the fibre whole in the hand. When this is the case, take it from the steeping pit and spread it roughly over a grass meadow. Here it may remain for several days, taking the dew and rain, if any, and turned twice a week with a fork. When sufficiently prepared in this manner it is fit for scutching. And here I must pull up, it being a waste of time and space attempting to describe this process; so soon, however, as any of your readers have grown the crop let them club together and engage some practical man to show them how to work it up. It is easily learned, and each farmer could hire the

teacher in turn, or all might meet together at one farm, and having mastered the process, carry it out afterwards at their own leisure. Above everything let me caution them against certain flax machinery warranted to do *everything* that is required. I have seen such selling here at from \$800 to \$1000 that I would not have as a gift. For \$50 a machine can be purchased in England that will do *nearly* all that is necessary, and a good heckling comb afterwards will complete the process, but it is impossible to describe how to use it in a paper of this kind.

Orange Co., Va.

T. L. HENLY.

P. S.—I notice in a discussion "how to treat clover," reported in your January number, that "the first difficulty is to get the plant." If your readers will sow clover with their flax they will find the former thrive wonderfully, but it will injure the flax to a considerable extent. My advice would be to sow only a bushel of flax seed per acre in this case, and when ripe *pull it*; in this way the seed will be saved (worth probably from \$10 to \$15 per acre,) and the straw will do for thatching; if used as such it will outlast any other similar material, and *if well put on* will rival shingle itself, unless of the very first quality. When pulled, flax may be stood up in small stooks, as wheat is done, without tying in the sheaf; and in dry weather the seed may be easily beaten out in the field over a flour barrel, with any old sheeting underneath to keep the seed clean.

T. L. H.

### Possibilities of Culture.

#### *Editors American Farmer :*

The difference between the actual amount of produce from a given area of land and the possible product is much greater than most farmers are willing to allow. Take for example the product of Indian corn—*Zea mays*—what is the average product per acre, take any section or state as a whole, or even of a single large farm? How many farmers average over fifty bushels of shelled corn per acre? I imagine that there are more who do not obtain thirty bushels average than there are who average fifty or over. Now it is demonstrated every year, on the sterile soil of New England, that one hundred and more bushels may be obtained from an acre, and that its cost of production per bushel is less than where only thirty bushels per acre only is obtained. I might name many instances where from 100 to 130 bushels of shelled corn was obtained from an acre of ground the past season, but it is unnecessary, as some of them have already found their way into the papers.

Now if one farmer and farm can grow 100 or more bushels of shelled corn per acre, why may not another, and all who improve similar soil? The answer is easily made, that there is a difference of culture; to be sure there are other contingencies which enter into consideration, in different seasons which are beyond our entire control—I say entire, for I believe we may partially overcome the greatest difficulties, and measurably guard against accidents of the season. That we can control the influence of the season I do not pretend to claim, but that these

influences may, in a measure, be modified I do claim. A wet or dry, warm or cold season cannot be overcome, but its influence on our farm crops may be measurably guarded against and modified in several ways.

In practical culture we must adapt our crops to the soil, if we would grow the greatest possible average, and then manage those crops skillfully—here we have *much* to learn. Undoubtedly there is a way to doctor a soil of known poverty cheaply, so as to produce greatly increased crops. This is a study for all who cultivate farms which have been long under culture, the solution is not the easiest, but still within the bounds of possibility. Ways and means have been frequently pointed out where it has been done, and what has been done may be improved upon. The kind of seed, of the variety, has a large influence on the amount of the product—if we breed stock we naturally select from the best improved breeds, and seek by every known and some unknown means to improve thereon—so we should manage with all our planting and sowing or seed used. If we plant a variety which only yields one ear of corn to two stalks we do not obtain as many bushels as we do if we use seed where two ears are grown on one stalk, and here is where one of the greatest failings of cultivators lies—the selection and saving seed after it is grown. But it cannot be grown, in the first place, unless there is especial pains taken to improve on general practices.

Worcester Co., Mass.

W. H. WHITE.

### The Season in South Carolina—Cheap Lands—Labor and Capital wanted.

Messrs. Editors *American Farmer*:

We have had an unprecedented winter. Rain from November 1st to this time, almost continual, and thermometer lower than I have ever seen it, or than we have any need of. A day or two before Christmas it stood at 2° above; on the north piazza of my house at sunrise 6° next day at same hour. I never knew it as low as 10° above but once before, in 1835.

Much of the fall sowed oats killed, and there has been no time since November to sow on clay lands.

We have just adopted the stock law in Marlboro,—obliging owners to fence in their stock. Of course there is a good deal of dissatisfaction among those who have a good deal of stock but no land. They think it a great hardship that they cannot put their stock on the "range." The law has been in force in some of our upper counties for several years much to the general satisfaction—even among those at first opposed to it.

They have now more beef and butter than before, and of course are improving their breeds of animals. No doubt we will have the same result here.

Our want here is labor and capital. Much fine land has been lying idle for years, and the white oak and hickory timber on our larger streams is the finest I have ever seen. A hickory tree was blown down on my place which meas-

ured seventy-three feet to the first limb, and was fifteen and a-half feet in circumference around the body at four feet from the ground. How many spokes would that have made? There are white oaks forty to fifty feet to the first limb—what planking for ships they would make!

The Jerseys you sent me some years ago have made them the fashion here, and they are valued highly. We find the grades fine milkers, and their butter but little inferior to the full bred. Good land that will bring forty bushels of corn to the acre without manure can be bought, cleared, at ten dollars per acre. I have made, not on our best land, twenty-eight bushels of wheat—no manure—and thirty-six bushels of oats—no manure. And yet these lands have been uncultivated for years.

The future has much in store for the South. One of my neighbors has made from twenty to twenty-five bales of cotton to the mule for years, using only the little manure made in his stable—no bought manure. With best wishes, I am very truly yours,

JOHN WITHERSPOON.

Darlington Co., S. C., Jan. 21, 1881.

### The Winter in Pennsylvania.

We have had so far a severe winter in Chester County, Penna.—some of the coldest weather I remember, except the winter of 1872-3, when the thermometer was about as low later in the winter. On last Christmas day the thermometer showed in many places in this county 20° and 22° below zero, and two or three other mornings 8° to 12° below. Snow fell nearly two feet deep before Christmas, and yesterday and last night about nine inches fell. Roads are very much drifted and many of them impassable for wagons. Sleighing pretty good. Winter set in so early and so cold it is feared by many that fodder will be scarce before grass comes. On account of the dry summer the hay crop was light. T. W.

January 5, 1881.

### Durable Rails.

I wish to state a few facts about cutting and preparing fence rails to get them to last well. A neighbor of mine in the spring of 1831 cut and barked some black oak trees, then cut them rail length and split the rails about 2 to 2½ inches thick on the sap or out edge, and of course the heart or inner edge was sharp. These rails were put up the same spring in a post fence, sharp edge up. The rails were 6 to 8 inches wide, and many of them are still in the fence and perfectly sound yet; the posts have been several times renewed. The secret of their permanency is in splitting them thin, so that they soon dried or seasoned through before decay commenced.

In the same year that this fence was put up I was climbing over a worm fence, so called, when the top rail or rider, large and apparently sound, broke with my weight. I then examined the rail, it was black oak, had been cut but a few years, was *thick* and a large portion of sap which had rotted before seasoning.

Chester Co., Pa., Jan., 1881.

T. WOOD.



## A Country Cottage.

A clergyman who had a half acre of land fronting south upon a road running east and west, once wrote to the late A. J. Downing for advice as to the style of a cottage he should build, stipulating that it should not cost much over \$1000 or \$1200, and yet should contain upon the first



ELEVATION.

floor parlor, study, bedrooms, sitting room, kitchen and pantries. In arranging the plan himself, he found his difficulties to be to bring the kitchen near the sitting room without giving up the bedroom; to get a back stairway underneath which might be a way to the cellar; to obtain a room over the kitchen, and finally to know what the external appearance of such a house should be.

To these difficulties Mr. Downing responded with the accompanying elevation and plan. Not being able to arrange for a back stair he has given something of the same utility, so far as the cellar way is concerned, by shutting off the back entrance from the front hall by a door at C. A door at D, opens on the veranda. In the study there are book-cases, with closets for papers at B. B. The parlor is 13x16 feet on one side of the hall and a corresponding dining room on the other side—the latter having two convenient closets so placed at the end of the room as to form a kind of bay window effect. There is also a kitchen, a bedroom for the clergyman and his wife, and a child's bedroom all in connection. The door A should be glazed in order to light the back entry more completely. If a communication between the bedroom and the entry is thought more desirable than the closets, a door may be placed there instead of the closets.

The first story being 11 feet in the clear, the posts for the frame of this cottage would be 17 feet long. The outside is designed to be covered with vertical siding and battens. The upper floor can be divided into chambers as desired, giving space for five good sized rooms. The exterior of this cottage is admirable, arrangements and accommodations are such that it is adapted to general use as a suburban or village residence; or, with some slight modifications, readily suggesting themselves and easily made, for an ordinary farm house. Mr. Downing's skill and taste in designing country homes have not been surpassed by his successors, and this house combines both qualities as the engravings give evidence.



PLAN OF FIRST FLOOR.

### Deer Creek Farmers' Club.

This club met at the residence of Benjamin Silver, Sr., on Saturday, January 8th. The subject for discussion was "County Taxes; how can they be lessened?"

The question, though a local one, as discussed by the club, yet has at the same time a general bearing not only in the other counties of the State, but also in other States, and it is one difficult to handle at all times. Roads we must have, and the better the cheaper. Schools are a necessity, and like the roads, the better they are conducted the cheaper they are to the general public. The judiciary system, too, is essential to our safety and well being, but here appears to be the greatest cause of complaint with taxpayers, that it is too unwieldy and costly. These and other aspects of the question were very temperately discussed, as was also the propriety of adding to the basis of taxation by including mortgages and other securities which now escape bearing a portion of the public burdens. Considerable differences of opinion were manifested by the members of this intelligent club, as is always the case in discussions of the kind. We cannot give in detail the remarks of each of the speakers, but will give those of Judge Watters, as pretty much covering the whole ground. We copy as usual from the *Agis*:

Judge Watters said the subject should be discussed from the farmers' standpoint alone. No money we spend beyond what we spend for the necessities of life brings us as good a return as the money we pay in taxes. Farms derive their value not only from their fertility, good buildings, &c., but from the public roads which give convenient access to them, the public schools, the churches, the protection afforded by our courts, &c. A farmer has the same use of the public roads as if he owned them all. Instead of lessening our taxes we should endeavor to spend the amount raised so as to get the greatest good from it. As to court expenses, the trouble is not in the system, but in ourselves. If a farmer has a steam engine to thresh, saw wood, &c., to do these laborious things it must necessarily possess the capacity to split kindling wood or turn a sewing machine; but it would be poor economy to use an expensive engine for such purposes. The same with our courts—the trouble is in using expensive courts to try petty cases, and that is the fault of the people themselves.

### Co-operative Sales of Stock, &c.

Mr. Moores, chairman of the committee in regard to co-operative public sales of stock, &c., under the direction and management of the club, reported rules and regulations, which were adopted. The first sale will take place on the last Wednesday in March next, at the Fair Grounds, Bel Air, if they can be procured for the purpose. Any one can bring stock, farming implements or produce to these sales, by first notifying the committee and paying a fee to aid in defraying the necessary expenses of the sale. The object of these sales is that the club may stand between the buyer and seller, to secure fairness and good faith to both sides, and to provide a convenient way by which farmers may dispose of surplus stock, &c., with the least trouble and expense.

The committee to inspect the premises, Messrs. Thos. A. Hays, Lochary and Wm. D. Lee, reported, through Mr. Hays, who said he had for years noticed the neatness of Mr. Silver's farm, and it is getting still neater. The house and surroundings are convenient, attractive and homelike. The barn is convenient for unloading, the stabling comfortable and the stock in good condition.

The club adjourned to meet at the residence of R. Harris Archer, on February 12th. Question for discussion: "To what extent do agricultural books and newspapers benefit farmers?"

[The system of public sales is one worthy of imitation by similar associations, and we shall look with interest for its development.—*Eds*]

### Bag Holders.

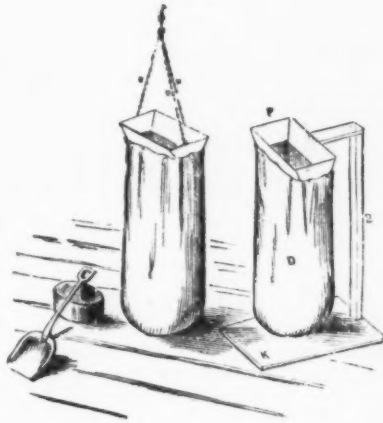


Fig. 2.

Fig. 3.

A proper size for the one shown by figure 1 is platform, K, 24x14x2 inches, either pine or oak; standard, B, 4x3x36 inches; hopper, P, 16x16 inches at the top, beveled to admit of the hooking thereon of the bag, O, as shown. It is obvious that by having the upper portion of the hopper of larger dimensions than the mouth of the bag, the operation of filling can be performed quicker and with less spilling of grain.

Figure 2 illustrates a simple arrangement; the hopper is the size of that in figure 1. It is supported by three short straps or chains RRR, attached to as many of its several sides, which in turn are attached at the point M. This bag holder is cheap, simple, portable and durable. By providing the chain, M, with a hook it can be raised or lowered to suit bags of various lengths. It can be attached to the granary wall or any portion of the barn above the floor.

THE SUCCESS of the proposed new elevator in Baltimore for water-borne grain is believed assured. It will also afford facilities for the oat and rye trade, heretofore too much neglected here.

### The American Dairymen's Association

Held its annual convention at Watertown, N. Y., on 11th of January. Prof. Arnold, the President, presided. The meeting lasted two days; the principal subject discussed was the making of skim-milk cheese, by processes which have recently been introduced by Mr. Arnold and others—the discussion embodied much of a scientific character.

Resolutions were adopted for the protection of the dairy interests from the effects of the adulterations, such as oleomargarine, lard, &c., and recommendations to Congress and the Legislature to regulate this business, which it was stated had been a loss to the legitimate business of dairying the past year of a million of dollars. Also for action in regard to the stamping out of pleuro-pneumonia by Congress; to alter the patent laws to protect farmers from the effect of clashing interests of patentees for implements sold; to protect American salt from the competition from abroad.

Mr. Burrell gave his experience in the use of ensilage, the cost of making the silos, &c. He said he had fed fifty-five pounds of ensilage, five pounds of middlings and one-half pound of cotton seed meal per day to his cows. The butter made was fine and sold high. Mr. Lewis may say it was the middlings and meal that were the cause of the fineness of his butter, which sold at thirty-five cents. A cubic foot of our ensilage weighs from forty-six to forty-seven pounds. It takes about six and a-half tons to feed one cow through the winter.

### Ensilage and Ensilagist.

Messrs. Editors American Farmer:

What with "Jersey" and "Guernsey"—a freer use of "cutters"—new and more liberal modes of feeding, &c., the standard of demand in quality of milk and butter has so risen of late that the dairy farmer must look sharply to his modes, and make the most of every means in his power, or he will be left in the rear with no buyers for his product.

As a venturer in a small way upon the perils of dairy farming, I have been watching with the utmost interest the developments with "Ensilage" in "Silos," and have read with great pleasure the various articles on the subject in your valuable journal; notably the one by Mr. Pierson in this January number, inasmuch as he demonstrates by the experience of Mr. Roberts that this most valuable mode of preserving green crops in the sweetness and succulence of summer, for the winter rations of our cattle, can be obtained by a moderate expenditure within the means of almost any farmer. That is, provided the same good practicable modes are resorted to as in other farming operations.

We are all well satisfied about *Ensilage* and its value, and we want it. We see from Mr. Roberts that a *silo* may be cheaply made and effective, but that done, we have no *steam cutter*! And our fodder must be cut and packed away at the proper time, and with a rapidity that demands a power and a force (of experts perhaps) which we have not at command.

But we must have *Ensilage*! Now the only way to secure it and in unflinching perfection is to have an "ENSILAGIST."

In the old days we threshed our wheat on the barn floor with a flail. Who does that now? The peregrinating threshing machine has become an indispensable institution. We must have a peregrinating *Ensilagist* who thoroughly understands the whole process, to go out with his steam or horse-power cutter and an assistant or two, from farm to farm, and cut up and pack away our fodder, &c., in a very short time, and with such thoroughness and skill as to ensure its perfect preservation.

The farmer can supply—as for the thresher—a portion of the force, and the expense to him will be but small compared with its benefit, while the enterprise and labor of the *Ensilagist* should meet with an abundant reward.

This idea may have been suggested before, but I have not seen it, and therefore beg that you gentlemen, *Editors of American Farmer*, will promote the plan by recommending farmers to co-operate in some way to carry it out. Where are the enterprising men who will start these machines? And where the enlightened farmers who will pledge themselves to their support or patronage? I will guarantee that the farmers of old Fairfax will stand ready. H.

Fairfax Co., Va., Jan. 22, 1881.

[The suggestion of our correspondent, who is an intelligent lady farmer, will probably be carried into practical effect so soon as the demand is felt, and the threshermen will be glad to use their engines in this way.—Eds.]

### A Milk and Cream Cabinet.



This is simply a home-made refrigerator which can be readily constructed during the idle days of winter by any one accustomed to handle tools, and which is calculated to be very useful to those who keep a small number of cows, and who have no proper appliances for setting milk, but who can have ice at their command during summer. The engraving explains itself. The upper part of the cabinet should be lined with zinc, and from the lower part of its sloping bottom a tube should convey off the drainage water.



## Consumption in Cattle, or Tuberculosis—II.

*Course and Termination.*—As has been remarked, unless serious complications arise, this is a protracted malady, and may exist for months without causing a serious disturbance. When the food is appropriate and regularly given, and hygienic measures are duly observed, six months, a year, or even a longer period may elapse before the symptoms become at all marked; but the disease, nevertheless, makes continued progress towards the destruction of the organs it has attacked.

The disease terminates fatally if the animal be permitted to linger on; its course being more or less rapid, according to the physiological importance of the organ or organs involved.

*Mortality and Loss.*—In cattle, the disease is invariably fatal at some time or another; but its most serious feature is the considerable period that elapses before its result is reached, and during which the animal becomes gradually less valuable; though it still requires as much, if not more care, and consumes food all the time. If it is a milch cow, the lacteal secretion is considerably diminished or altogether arrested; and if it is an animal about to be fattened, it more or less hinders that process. In every case, if not allowed to perish from the disease, the animals must be slaughtered to avert utter loss, no matter what their condition may be, so that economically the malady is a serious one.

Though very prevalent in this country, we of course can form no estimate of its frequency; as there is no regular slaughter-house inspection in Baltimore, nor any measures in force for ascertaining the extent to which a serious malady of this kind may prevail.

### Sanitary Measures.

*Preventive Measures.*—The only preventive measures with which we are acquainted are those of a hygienic kind; proper food and water; sufficient exercise in the open air; clean, dry, and well ventilated, but not too cold stables; and keeping the cattle from undue exposure to severe weather. As there is reason to believe that the malady is hereditary, cattle having any tendency to it should not be bred from.

As the experiments which have been conducted by most competent authorities have demonstrated that tuberculosis can be induced in animals by feeding them with tubercular matter, care must be taken that this is not given to them as food.

*Suppressive Measures.*—There being much reason to believe that the disease can be transmitted by cohabitation, whenever cattle show any tendency to it they should be isolated from the healthy, and every precaution observed with regard to preventing contact. Animals slightly affected should be fattened and slaughtered, and their flesh, if free from traces of the disease, may be utilized. The milk of such animals should be proscribed, and in advanced cases the flesh also.

*Curative Measures.*—Tuberculosis is an incurable disease, but its progress may be ameliorated

or retarded by dietary measures. The food should be of an easy assimilable and digestible kind, and should contain a due proportion of fatty and starchy principles. Linseed cake and corn, and pea flour, with small doses of linseed oil, are suitable; and the various preparations of iron, as a tonic, and carefully administered, have been found advantageous.

### The Flesh of Tuberculous Animals as Food.

Any organ or texture in which tubercle is deposited, as well as tubercular matter of any description, should not be considered fit for food. As we have no proof that the bones or muscles are usually the seat of tubercle, unless, perhaps, in very advanced cases of the disease, these may be utilized, if otherwise in a healthy condition. This relaxation in a sanitary point of view, is almost urgently demanded until we have absolute proof of the noxiousness of such food; as the number of phthisical cattle sent to the slaughter house is generally very large, and the condemnation of such a quantity of flesh would be a serious economical sacrifice, and one which could not be justified by our present knowledge of the disease. For it must be borne in mind that there are few animals which have been kept for any length of time in cow-sheds, and fed and milked in the usual manner, which are not more or less phthisical; more particularly is this the case if the dwellings are bad.

Of course, the flesh of cattle in an advanced stage of phthisis must not be consumed, as, in addition to the risk of its unhealthiness, it is of very inferior quality. Everything must depend upon the extent of the alterations and the gravity of the tubercular lesions. When the tubercles are soft and there are purulent masses, and the alterations are otherwise numerous, danger is to be apprehended from the consumption of the flesh as food. On the contrary, so long as the tumors are hard and dry, and no caseous infiltration has taken place, and especially when the majority of the organs in the abdomen and thorax are not invaded, then the risk is less.

Any danger to be apprehended from the consumption of the flesh of phthisical cattle may be obviated by thoroughly cooking it.

In view of the inferior quality of the flesh of phthisical animals, those which are suffering from advanced pulmonary or mesenteric tuberculosis should not be utilized as food for man or valuable animals, though for some of the latter it might be available after being well cooked; and in the case of cattle affected with this disease, though in tolerable condition, great care should be observed in removing and destroying all the affected tissues or organs.

The flesh of cattle affected with tuberculosis in an advanced stage presents the usual characters of anæmia. It is moist, or rather watery, pale and bloodless, and the connective tissue is more or less infiltrated with serum; the fat has become a dirty-looking yellowish pulp, also infiltrated with serum; the marrow of the bones is likewise unhealthy looking and unnaturally soft, and the lymphatic glands not yet tubercled are pale and friable. Infiltrations of tuberculous matter may be discovered in various organs and tissues, as before stated.

**The Milk of Tuberculous Cattle as Food.**

That the milk of diseased cows suffering from tuberculosis is deteriorated in quality there cannot be a doubt, and we have already noticed in what this deterioration consists; but that its use as food is likely to induce phthisis, we are only now commencing to obtain proofs.

Klebs (an author) has carried out a series of experiments on various animals to test the action of this milk when given as food, and has been successful in inducing tuberculosis in them. In addition to rabbits and Guinea-pigs—creatures which appear to be extremely susceptible to the artificial production of the disease—he accidentally produced the disease in a dog by giving it the milk from a cow in the last stage of the malady. The results of his experiments led him to the conclusion that the use of this milk always produces tuberculosis, which first commences as intestinal catarrh, and then assumes the form of tubercles in the mesenteric glands; it afterwards attacks the liver and spleen, and subsequently the thoracic organs. He asserts that the tuberculous virus exist in the milk of phthisical cows, whether they are slightly or seriously affected, and that it is chiefly in the serum, as, when the milk has been so infiltrated as to deprive it of its solid particles, the fluid portion appeared to be as active as the unfiltrated. Its virulency is not destroyed by ordinary cooking, and it is all the more active as the disease has reached an advanced stage. He admits that it may produce no injurious effects in vigorous subjects, and he has observed fully developed tubercles to be absorbed and disappear after a time. He thinks it probable that the virus of tuberculosis may exist in varying proportions in the milk of phthisical cows, according to the extent of the disease in them; and he is of further opinion that the malady may be developed in children born without any tendency to it, through the medium of the milk of the mother or nurse.

The commencement of phthisis is generally so insidious in the human species that it is most difficult to arrive with any degree of certainty at the causes which directly produce or favor its development; but from the evidence before us, it is to be feared that at least one of its sources may be referred to this fluid. It is certain that tuberculosis is a somewhat common and very destructive disease, among dairy cattle especially, and more particularly those in towns; that the udder is one of the glands not unfrequently involved; that infants and adults consume milk in large quantities—indeed, it is the staple diet of young children—and that phthisis is a very prevalent and fatal malady in the human species, and chiefly among the dwellers in towns and cities.

There is every reason, then, to prohibit the use of milk from cows affected with tuberculosis, and especially for infants, who mainly rely upon this fluid for their sustenance, and whose powers of absorption are very active. Even if it did not possess infective properties, its deficiency in nitrogenous elements, and fat and sugar, and the increased proportion of earthy matters, would alone render it an objectionable article of diet. It had long been known that it was liable to produce diarrhoea and debility in infants, but though

these died from general or localized tuberculosis, the part played by the milk in its production was not suspected.

D. LEMAY, V. S.

Baltimore.

**The Poultry Yard.**

By G. O. Brown, Montvue Poultry Yards,  
Brooklandville, Md.

**Seasonable Notes.**

Now is the proper time to feed with stimulating food to force egg production, in order to have a few hens or pullets ready to sit to get early chicks. The earlier chicks can be got out, the more eggs will be had next winter. Meat scraps, bones, and table refuse of all kinds, with an occasional drink of warm milk, and the food well seasoned twice a week with red pepper, not forgetting a liberal supply of green food, if the birds are warmly housed, will cause them to lay liberally in spite of Jack Frost. Stormy days and odd times may be filled in by repairing the chicken coops and building new ones. Clean them up, whitewash them and place away in a dry place. If you are fortunate enough to get out a brood in February, don't think it will be too cold to raise them; place your coop on the south side of the manure heap and bank it up around all sides except the south and you will be astonished see to how they will thrive. Nights cover up the front with old carpet. Don't give any water to drink until chicks are at least three weeks old as it gives them diarrhoea, and the feathers become clogged in the rear and chicks drop rapidly off. The mixed food heretofore recommended in the *American Farmer* furnishes all the moisture the chicks need. Put the eggs away for hatching with the big end down and where they will not become chilled by frost.

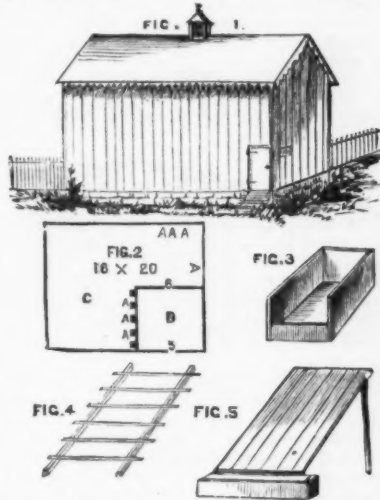
**Hints for Beginners.—II.****Poultry Houses.**

Doubtless many are deterred from commencing the poultry business on account of the expense of erecting suitable poultry houses. Very often unnecessary expenditure is indulged in building quarters for the poultry stock, being constructed more elaborate and ornamental than is necessary—though when the proprietor can afford it these are excellent faults, if faults at all. In fact, if due consideration is first given to making the houses convenient and comfortable, it should then be the aim to make them attractive looking. A neat cornice, inexpensive, will often greatly alter the appearance, and put on a finished look that is very pleasing. Poultry always show to much greater advantage in handsome quarters than in inferior ones. A most usual mistake is made by making the houses too high, in doing so there is a loss of lumber which there is no direct benefit derived from whatever; whereas, if the same number of feet of lumber was so used in constructing the building, that it extended over more ground surface, it would afford for the same outlay much larger accommodations. The main points to be considered

in building a poultry house are, first, a suitable site, which should be, if possible, on the south-east side of sloping ground, and the ground should, immediately where the house is to stand, slope each way from it, this will insure the interior of the building freedom from dampness, and this is one of the most important considerations in poultry keeping—*dry quarters, houses entirely free from dampness.* The foundation wall should be a foot or more higher than the earth around it, and then filled in level with the top of the wall with good dry sand; coal ashes would answer for the bottom, but not for the top, as they absorb moisture, and retain it much longer than sand. Windows with movable sashes should be placed in the east and south sides. Ventilation should be from the highest point in the roof, and the roosts so situated that there are no draughts of air coming in on the stock. A very cheap house may be made as follows: If you have a board fence situated in a suitable place, it may be utilized for the back of the house, boarding it tight, of course, as far as the house is to extend, and all the cracks securely battened with suitable strips. If you get boards 16 feet long you can have the front 6½ feet high and 9½ deep front to rear of house, this will be plenty high enough to allow room to clean the house out. A row of nests should be made on the side or in front, and fastened on the outside with a hinged door or top, which should slope enough to carry the water off; these nests should be made so they may be approached from the interior of the house by small holes cut through the sides of the building for the purpose. They should be about 15 inches from the floor. As hens like a secluded nest a good plan would be to make a covered run with boards in front of the nests with open approaches at each end. Nests thus darkened are preferable, as hens are hardly ever known to eat their eggs but when the nests are in very light places. Nests made as described above, it is not necessary to enter the house to gather the eggs—but simply raise the hinged board from the outside. The roosts should be made so they can be easily removed. A trough should be made so it may be hung up against one side of the interior of the building, and during stormy weather the feed placed therein. The dust bath should be placed so it has the direct benefit of the sun; the best way is to nail four boards together, making a four sided arrangement, and place it where you desire to have it on the sand floor; do not have any boards on the bottom, the sand floor is preferable. Then fill it with sifted coal ashes. Wood ashes are not so good, as the lye or potash in them has a strong tendency to bleach yellow legs and make them white or flesh color.

The accompanying illustration is of the main building at my yards. Figure 1 being exterior view of the house, which is 16x20 feet and 8 feet to the eaves. Figure 2 shows interior arrangements. B is a small room, partitioned off from C, (the roosting room,) which is designated as the egg room. The eggs are gathered here without going into the room C. The nests are all made like figure 3, and are 16 inches long, 14 inches wide and 12 inches high. The open ends are placed in the room C, and when a hen has decided to set the nest is reversed which places

the closed up end in room C, and the setting hen can, thereby, have the run of the room B unmolested by other fowls. 6 is a door from room B to room C, and AA are nests in room C. Figure 4 is representation of the roosts, under



which comes figure 5, inclined boards, 18 inches below roosts, at the bottom of which is a trough to catch the droppings. From experience, however, I have been led to understand that the roosts should *all* be on one level, and should now recommend that mode, having them either hinged to the side of the building, or so constructed that they could be readily removed. The house just described has large windows on east and south sides, and ventilator in centre of roof, as shown in the cut. Next month we shall have a few words on chicken coops for broods, &c.

### Poultry House.

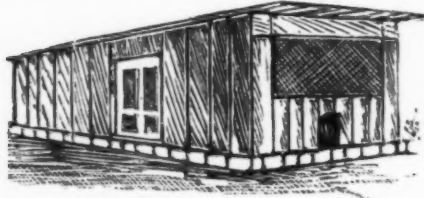
The wise man saith "of making many books there is no end," and the same may be said of poultry houses. The illustrations and plans that are given in the agricultural and poultry papers are usually intended for more northerly States than Maryland, and are more or less encased in glass, and in some cases even provided with stoves.

What is needed for the thrift of poultry is really very simple *but imperative*; dryness, warmth, pure air, food, (embracing cracked shells, bone, gravel, charcoal, salt and pepper, in addition to the main ration of grain and vegetables,) and lastly, clean pure water, warm in winter and cool in summer.

Poultry do not like to be confined to their roosting room, so that when the ground is covered with snow, it is well to provide them with some place where they can enjoy themselves. To effect this their house should be divided into two parts, a laying and roosting room that can be closed at night, and an outer room open to

the sun and air, with feed trough, water vessel and dust box, kept well littered with leaves or straw.

In building, the structure can be made plain, or as ornamental as the means allow, but the accompanying plan will be found sufficient for ten or twelve birds, and can be added to either by a passageway with a pen on each side, or pens made side by side. The foundation can be either a trench dug a foot in depth and filled with small stones, with a drain pipe from it, or masonry raised one foot from the surface and filled level with sand.



Make the house eight feet wide and fourteen feet long, divided by giving say six by eight feet to the roosting room, and eight feet square to the outer room; eight feet high in front and four feet at the back; the partition can be made movable, so that in summer the house will make one large airy room; a door being made in the back, closed tightly in winter, but in summer replaced by a wire frame; the front should be boarded for about three feet from the ground, the upper part wired or slatted. The framing can be of two by four stuff, the sides and roof of good white pine boards; the edges of the roof boards ploughed, and the cracks covered with tin or fence boards; the sides battened; the inner room may be lined in part with tarred roofing paper.

Throw some grain among their pile of leaves, and it will warm your heart to see them scratch.

T. W. HOOPER.

### Bee Keeping—Requisites of Success.

*Editors American Farmer:*

In accepting an invitation to contribute to your valuable journal some articles upon the management of the apiary, I will be well rewarded for the little effort it costs me of putting upon paper the practical experience of over twenty-eight years as a bee keeper, if it profits in any way your readers, and I shall confine myself to the most recent discoveries and improvements in apiary management and bee keeping apparatus, and recommend nothing but what actual trial has proved to be good and practical.

Bee keeping to be successful requires a great deal of care and mental effort, and no one should commence the business with a view to making it a specialty but those who are willing to read, think, study and WORK!

He should be cautious, observing and prompt to do whatever the need of the business requires, with no thoughts of delay. He must be willing

to work with untired energy during the busy season, and *must* persist, though misfortune and discouragement thwart his plans and rob him of his coveted gains. Such are the men who succeed in bee keeping.

As a pleasant and profitable avocation bee keeping may be safely recommended to those of any business or profession who possess the above named qualities, and controls a small space for the business. A few rods will answer, if but a short distance from the street. The flat roofs of buildings, unoccupied rooms, and, in fact, attic windows are now enumerated among the very best situations and successful apiaries. In this city, a gentleman keeps a large number of colonies on the roof of his building, as does Chas. Muth, Esq., a prominent merchant and apiarist of Cincinnati. Another uses two windows, with a hive in each, with a slot cut through the lower sash to correspond with the entrance to the hives, the bees using the window sill as an alighting board, while the hives are within the room, where the workings and mysteries of the hive can be studied at all times. To those who are able to devote a little time when required, to care for the bees, bee keeping can be made a pleasant and profitable occupation, even on a limited scale.

Residents of the city, village or country, male or female, may here find an ever waiting opportunity to add to their income and pleasure. To the ladies, shut out from fresh air and sunshine till pallor and languor point sadly to departing health and vigor, and to men whose business precludes air and exercise bee keeping cannot be too highly recommended as a profitable and health bestowing occupation.

Every one in practicing apiculture will find besides a fascination which is indelible, nature is always presenting the most pleasurable surprises to those on the alert to receive them, and among the bees the instincts and habits are so marvelous that the beginner in this department of nature never ceases to meet with exhibitions that move him to admiration and wonder.

For the time it affords additional gains to the poorly paid; out-door air to the clerk and office hand; healthful exercise to those of sedentary habits, and superb recreation to the professional man; and especially to him whose life work is of that dull every day routine order that seems to rob life of all pleasure. It can be so planned, with a little thought and management, that the labor required in keeping bees, if but a few colonies are kept, will not interfere with the regular occupation.

The profits, too, of bee keeping surely ought to recommend it to all as a pursuit, when we consider the small amount of capital invested—the small amount of labor and expense attending its operations—we are surprised at the large reward that is sure to follow its successful management. The bee keeper who follows the occupation as a business, with his scores of colonies, has at certain seasons laborious work to perform, yet with all this it is pleasant and healthful. But this hard physical labor will continue only for a few months, and the balance of the year the bee keeper is at his ease.

Who will doubt the profits of bee keeping in the face of the experience of G. M. Doolittle, of



Borodino, N. Y., who realized over six thousand dollars in five years from the honey taken from fifty colonies of bees, in excess of all expenses, except his own time. Bee keeping made Adam Grimm a rich man; it brought to Capt. Hetherington, of Cherry Valley, N. Y., over ten thousand dollars as the cash receipts of a single year's honey crop. Mr. Harbison shipped from his own apiary eleven car loads of honey as the products of a single season. What greater recommendations can any pursuit offer? I might enumerate scores of others who have made bee keeping a success, but will pass on to other important matters. Doubtless, among the large numbers who glance over your columns, there are many about starting in this business; to such I would say *start right*.

1st.—Procure some *moveable frame hive*, of which there are a great many patterns, but none patented at the present time. I prefer the Colvin pattern, Langstreth, as the very best hive, while others are as enthusiastic over the Quimby, American, Bristol, Simplicity, &c. Which ever you decide on, stick to it and have no other. One kind of hive is all that should be in any apiary for various reasons to be given hereinafter.

2d.—Subscribe to some of the Bee Journals, of which there is a weekly, semi-monthly, and four monthly publications, all of which are excellent. Therein you will read the experience of a great number of the 300,000 persons who keep bees in the United States, and through their experience you will profit and keep posted on all new and useful appliances that are each season being brought out.

3d.—Keep Italian bees, because they are easier to manage, more amiable and better workers in all respects.

4th.—Buy one or all of the standard works on the Hive and Honey Bee. I consider Langstreth the best in every respect, as to all the important features; but it needs revising to be up with the times, as many important advances have been made since its publication. Quimby's Bee Keeping, new edition, Root's A. B. C. of Bee Keeping, Cook's New Manual, King's Text Book, are all standard and excellent publications, and one, if not all, should be in the hands of and carefully read by every beginner, and would greatly assist many who I know have kept bees for years who are in the dark respecting their management. In addition to this, visit some bee keeper whom you know to be successful, and learn all you can of him; have him show you the practical workings of the apiary even if you have to visit him many times. Such lessons are worth many books, as you see just how it is done.

5th.—In buying, select strong colonies, with young prolific queens, and your investment will reward you. Should they be black bees in box hives, have them transferred early in the Spring, (April 1st is a good time in this latitude,) and if an Italian queen can be procured, have her introduced, if not postpone it till the honey season is over, (July 20).

6th.—Don't be too fast in increasing colonies. One strong swarm is worth six weak ones. A moderate increase is *best* and *safest* even to the experienced. I prefer and practice artificial

swarming as safest and best, and will tell you just how I do it, and also how to transfer from box to movable comb hives in my next.

C. H. LAKE.

*Sunny Side Apiary, Baltimore.*

### The Montgomery County, Md., Farmers' Convention.

The meeting at the Sandy Spring Lyceum this year was the largest and most stirring of any of these interesting and profitable re-unions, which for eight years have been reported in *The American Farmer*, showing the heartiness with which the farmers of Montgomery engage in discussions for the advancement of themselves and their fellows in agricultural practice. It is estimated there were about two hundred persons present, including a number of visitors from other counties of Maryland and Virginia, and many of the best and most successful farmers at home.

The president, Henry C. Hallowell, opened the proceedings by giving a cordial welcome to all present, saying in substance that the convention was the result of a want felt of the need of a wider social intercourse, and the suggestion of Wm. H. Farquhar, that there should be a meeting of all the Farmers' Clubs in the vicinity, was taken up warmly. We held our first convention in this hall eight years ago, and have met annually since with increasing attendance and business, until, instead of a short afternoon session, we are now meeting at 10 o'clock. On looking over the past year we find it has been a prosperous one, with abundant crops and good prices, but above all, in real value, is the fact that there is a greatly increased interest in agriculture and in co-operation. The pioneer upon the wide spreading prairie is almost absolutely independent, but as neighbors surround him and the country becomes thickly settled, they all feel the necessity of laws for the common good. So is it now with agriculture in the nation. Each occupation must realize that there is a mutual obligation; farmers are dependent upon cities and trades; they in turn are dependent upon us. Farming is beginning to take its proper position, not utopianly high, as its enthusiasts would have us believe, but its true place, equal to any other vocation.

On looking over the intelligent assembly before me, it is with sadness that we miss three familiar faces, summoned from our beautiful earth, which they have aided to improve and to adorn: Jas. H. Stone, B. Rush Roberts and Samuel Ellicott, all useful and upright men and excellent farmers, who have left a gap in our midst that it will be hard to fill. But we must not dwell upon the past. It is the still water that breeds pestilence, the running stream that brings fertility and health. We must look forward, and aid to do our parts towards reaching the ideal of the age. We, as individuals, make up the community; as we improve the State improves. It is for this reason we have met here, to exchange

thoughts, expressions and friendly greetings. The social life is an important one for all true development. I trust that you will bear in mind, that sometimes those who know the most talk the least, but that here we are all as though we were assembled around our own firesides, and all must speak freely as friend to friend.

Canning vegetables being one of the local industries, reports were read from Henry Stabler and Albert Chandlee that they had put up during the year, 8,400 cans tomatoes; 49,400 cans corn, and 2,500 cans peas.

Several farmers alluded to the Hog Thistle, or Horse Nettle (*Solanum Carolinense*) and expressed a fear that it would be difficult to exterminate, as it seems to thrive with cultivation, and extends its roots very deep. One gentleman said he thought he perceived a *flavor of tea* on the ends of some of the roots. Albert Chandlee stated that he thought he had mastered it by putting corn ground in buckwheat while the thistle was in full bloom, turning the buckwheat under when it was in bloom, and then following with wheat. He will report next year.

A statement by the late B. Rush Roberts was read, showing that in careful experiments, the large potatoes planted whole were found to give a greatly increased yield, being more than double that of medium potatoes cut to two eyes. It took 43 bushels of large potatoes to plant an acre.

Robert H. Miller reported that he had sown salt on potatoes, at the rate of 500 lbs. per acre as an additional fertilizer, and that 4-5 of them failed to come up. P. T. Stabler reported similar experience with kainit. D. Lawrence drew attention to the fact that potatoes had, as a general rule, come up badly, and asked the reason. Among those given were: the dry season, having been planted too late, and the mild winter having caused the tubers to exhaust themselves in sprouting. Thomas Waters asked if unleached wood ashes would injure potatoes. a. Decidedly not.

It was suggested that more millet should be grown, and Walter H. Brooke said he had raised 1½ tons to the acre, and others had exceeded that quantity.

#### Club Reports.

Here the reports from the several clubs were read, Wm. Hy. Farquhar reading that of the Farmers' Club of Sandy Spring. He alluded to the remarkable fact that since its organization in 1844, it had never lost a member by death, and yet within five weeks it had been called on to follow to the grave three of the group they had known so long. Samuel Ellicott was the first to depart. His privation of sight, which had not seemed to interfere with his unusual ability and success as a farmer, had served to increase the interest felt in meeting such a valued member. The club, in nearly compact order, followed his remains, on the 5th of November, to their last resting place among the Patuxent hills.

The death of B. Rush Roberts was next alluded to, his wide sphere of usefulness, and the vacant place he will leave. One week later Jas. H. Stone died. No better farmer than he was to be found in the Club or out.

After alluding to these sad losses, he proceeded to other themes, as follows:

Much attention has been paid to the growth of field peas, or more properly beans, as a crop for turning under as a fertilizer, and with satisfactory results. Chestnut posts, 6½ feet long, delivered one mile distant, were worth from 7 to 10 cents. Clover seed should be sown when the ground is well cracked open. The date makes but little difference. Peerless potatoes are liked best for the main crop. A majority think the "Smith Cider" is the best apple to plant for winter use. A great difference of opinion was manifested as to the value of barnyard manure, ranging from 50 cts. to \$2.00 for a horse-cart load of 40 cubic feet.

An interesting discussion arose as to fertility of our best farms compared with twenty years ago. Many thought they had not improved, though all did not agree with this idea.

Attention was directed to the increased use of the portable steam saw-mill.

Cumberland coal is good for hogs. Blue stone soaked in alcohol is a cure for sore feet in horses.

The proceedings of the Senior Club were closed with a transcript of the minutes of the last meeting, at the beautiful home and fertile farm of its deceased member, Samuel Ellicott, where everything was found in the usual admirable order, and an adjournment had after a most pleasant meeting, little thinking that it was its last assembling there.

#### The Montgomery Club.

Henry H. Stabler reported the Montgomery Club as having prospered during the past year. The average attendance has been good, and in all ways it has been as beneficial, both socially and materially, as its friends could desire. The practice of having an essay read at each meeting by a member appointed for the purpose, has added much interest. His extracts from the minutes of the Club are as follows:

An average of 12 working hours per day was thought to be right for both employer and laborer. Most members think it more satisfactory to permit an allowance and let their hands board themselves. The opinion is gaining ground that it is best to sow clover seed in the Fall as well as in the Spring. An experiment was reported, showing that Berkshire hogs weighing from 250 to 300 lbs. lose 12 lbs. in the hundred in dressing, while those weighing from 100 to 200 lose 24 lbs. in the hundred. It is recommended to apply lime to the surface rather than to plow it under. It is thought to be most profitable to have a dairy herd fresh in August or September, rather than in the Spring. The wheat crop of the Club averaged one bushel per acre less than last year, but the acreage was 30 per cent greater. The yield of corn was unprecedented. Hay was only about half a crop. The deficiency of hay was made up by sowing fodder-corn and millet. The potato crop was fair. Fruit was a failure, it being unnecessary to sign a temperance pledge so far as cider was concerned. Eight members report having cleared from the original forest, within the past year, 46 acres; nearly all of which is now in cultivation. One member had put in during the year about one mile of blind ditch, averaging over four feet deep.

Averages of the leading crops of sixteen members during 1880: Wheat, 22½ bushels per

acre; Corn, 9½ barrels per acre; Potatoes, 99½ bushels per acre; Hay, 7-10 of a ton per acre.

Eleven members reported 43,107 lbs. of pork; five members, 17,262 lbs. of butter; eight members, \$1,780 profit on fat cattle; one member, \$120 profit on chickens and eggs; six members, \$964 profit on lambs and wool.

#### The Enterprise Club.

Granville Farquhar sent a report to this club, stating that the average attendance during the past year (twelve meetings) was 13½. The crop reports show the year to have been a prosperous one. There have been no ravaging diseases amongst the stock or injury to crops. We note extensive improvements at the houses of several of our members, among them being water arrangements in the dwellings, and a fine new barn. Several important enterprises are projected, one being a Farmers' Hotel and Market, to which those present at a meeting in January agreed to take over \$3,000 worth of stock. Last winter a committee was appointed to visit the Commissioners of the District, bringing before them the bad condition of the 7th street road and asking them to improve it. They were politely received and were assured that it would be attended to. A member asked if he should get a self-binding harvester. Ten advised it, and two would not. Would the County Fair be more successful if held 3 days, or only 2. Four voted for 3 days, seventeen for 2 days. The most frequently recurring question is, "what plough shall I use?" The answer was, Syracuse 5, Oliver 3, Commins 2, Rowland 1, Wiard 1, Loudoun 1.

#### Crop Report.

Wheat, average per acre, 18 bushels; Corn, 9 barrels; Hay, 5-6 of a ton; Potatoes, 104 bushels; Pork, about 40,000 lbs.; Butter, 12,000. With regard to the hay crop, the members were agreeably surprised, as at the June meeting half of the members thought there would only be ½ of a crop, and the rest from ⅓ to ⅔ a crop. They made ⅔ of a crop.

[We are obliged from the pressure on our pages to defer our report of the discussions at this meeting to the March number.—*Eds.*]

#### Work for the Month—February.

The winter, up to the close of the first month of the year, has been so severe that no progress has been made in any out-door work, and when Spring opens much ordinarily despatched at this season will be found pressing to be performed. Thorough preparation, however, and thoughtful plans are now in order, and will make the tasks to be done all the easier of accomplishment when they may be approached.

**Sowing Clover Seed.**—Many of our best farmers like to sow in this month or in March, and, if practicable, when snow is on the ground, which—melting—carries the seed down and into the crevices left by the frost, there to germinate. Seed, too, sown on the ground when it is frozen will become imbedded in the soil as it thaws, and soon covered, thus giving protection to the young plant. If not sown early, under the one or the other of these conditions, it is better to wait until the frost is entirely out of the ground and then

sow, harrow and roll. The harrowing and rolling will not only cover the seed, but also do good to the wheat plants; any disturbed by the teeth of the harrow being pressed back into their places by the roller. For most soils 12 pounds of seed to the acre is sufficient, but in most cases a bushel is made to go over six or eight acres.

**Orchard Grass** ought to be sown early, and when sown with clover a bushel is generally used with ten pounds of clover seed to the acre. Where both are put on the same land they should be sown separately to secure even distribution, and harrowed and rolled. Used alone orchard grass should be sown thick to avoid the formation of tussocks or stools. In such a case two bushels of seed is not too much to the acre.

**Tobacco.**—The season for stripping tobacco is now fully at hand. Let the planter embrace every opportunity for stripping. Remember always our oft repeated advice to be careful in assorting the leaves, both as to color and length. It is folly to spoil the crop now that it is made by careless handling. The bundles will do better upon the sticks for the next month than in bulk. Tobacco beds may now be selected and made. We repeat what we have heretofore said: southern exposures best, though northern exposures, all other things being equal, will be only a few days behind a southern exposure, and have this additional advantage that such plants stand a drought longest. Two hundred and fifty pounds of the finest guano is not too much for a bed of twenty yards square.

**Live Stock.**—From reports that we hear from most localities where the *Farmer* will be read, it appears that the winter has been one of more than usual severity. The farmer who keeps domestic animals of any variety, does so thinking that they will either directly or indirectly benefit him—the better the care the larger the profit will be in all cases.

Breeding ewes, as the time approaches that we expect them to "declare their usual stock dividend," must have great care. Never allow them to run in the same enclosure with other stock, especially hogs or colts, as the former will invariably destroy the lambs, and the latter, by running and kicking, cause lambs to be born prematurely or destroyed by the rough play of the colts. It is always best to provide a small dark stable, large enough for one or two sheep and their lambs. As soon as you find a sheep in labor, if not too far advanced, she ought to be put in a box or stall alone. Frequently a newborn lamb will get under a sack, or in some out-of-the-way corner, so that its dam cannot look after it till too much chilled to be saved without taking it to the fire. If when found the lamb seems too much chilled to nurse from the dam alone, she should be *gently* caught by an assistant, and held flat on one side while you milk a few drops of milk in its mouth, (to be held open by inserting a finger of the left hand.) A very small quantity will most likely have the desired effect, that is to make it desire more and try to suck with assistance. Remember, always, that to follow nature is the best plan, if the lamb is able and the ewe willing. We have often seen lambs so far gone that they could not move, from cold and neglect on the mother's part by a few moment's care raised so as to be the best of the flock.



All breeding ewes should be carefully caught, and have the wool sheared around the udder, and wherever it will inconvenience the new-born lamb in getting its first nourishment. Especially with young ewes is this important. As soon as the lambs are two or three weeks' old small troughs should be provided, in which corn-meal and bran mixed can be kept at all times. The trough should be made of two six-inch boards, raised a few inches from the ground, and have a pole placed about six or eight inches above the entire length, so that the lambs while playing will not be able to get in the trough, so as to soil the feed. The openings to the feed trough must be so arranged that the ewes cannot get in to eat the food provided for the lambs. Old thin ewes will need extra care after the lambs come, to make them give sufficient milk. Single lambs will not need as much care as twins. A small feed of turnips, small potatoes or cabbage, will be found of great benefit to ewes at this season of the year; if neither be at hand, wheat bran is next best, as it adds to the flavor of milk.

As soon as the lambs are three or four days' old the tails should all be cut off *very short* with a sharp knife—even if they are only intended for the butcher, short tails look so much better than even a butcher will pay more for them. Three or four weeks is considered a safe age to castrate the bucks. In this the weather must be pleasant, and a small quantity of carbolic acid and glycerine should always be poured in the wound, to insure its healing well. The above is equally true of calves, both as to age and the use of carbolic acid.

### The Orchard and Fruit Garden.

The unremitting severity of the weather since the latter part of November last, has been such as to afford but little opportunity for the performance of any out-door labor relating to the orchard. Vennor and Tice have manifested a most persistent *coolness* in their prognostications, and have exhibited a veneration for "ye olden time" winters pure as *snow* itself. It is, however, presumable that these gentlemen cannot go much further without being "warmed up" in their labors, and then will be the opportune time for orchardists to "buckle on their armor" and commence a vigorous campaign.

For those who have any trees they wish to graft the coming Spring, the early part of this month is a suitable time to collect twigs of such varieties as are desired—cutting only of the last year's growth—tying separately the kinds and labeling them, when they can be packed away in moist saw-dust or sand and kept in the cellar, (if the premises affords such a convenience,) or buried out of doors below the frost line until needed for use in the spring.

PRUNING can be done this month if any mild spells of weather should occur, such as to render the wood free from frost; as it is generally believed that pruning when the wood is frozen is injurious to the trees to a greater or less extent. Another fact to be remembered is, that pruning at this season tends to promote *wood growth*, and not *fruitfulness* in the tree; or, that it has less tendency to weaken the vitality of the tree than if performed when the tree is covered with foliage

and growing; hence, if it is desired to force the tree into bearing more fruit, better defer the pruning until June. Young orchards, or newly planted ones, will more particularly claim attention at this time; for example, in peach orchards planted last fall, all the side limbs should be removed, cutting close enough (with a *sharp knife*) so as to leave no spur, and yet far enough from the main stem so that the surface of the wound will be no larger in diameter than the limb that is cut off, then cut off the tops to a height at which it is desired to form the heads. In the bearing orchards that produced heavy crops last season, there doubtless will be found some limbs that have been partly split off at the junction with other and larger limbs, and some broken by the weight of the crop, or the carelessness of those who gathered the fruit; these should all be removed with the proper implement, together with all the *dead* limbs which are more or less every year in peach time. Just here we would add that the removal of the *dead* wood from year to year in bearing peach trees is all the "thinning out" they require. In the November number of the last volume of the "*American Farmer*" we gave a list of reliable and good varieties of the different fruits, which the beginners in fruit growing will find of service, should they wish to set out orchards during the approaching Spring. We would advise *direct* dealing with responsible nurseries, instead of entrusting orders to the traveling "tree peddler;" for though the latter can and will give you a score or more of very plausible reasons why it is to your advantage to give him your order, it is well to keep in mind the fact, that as soon as he gets the pay for the trees his interest and responsibility ends; and you will probably neither see nor hear tell of him in your vicinity again, except through the complaints of his customers.

In the FRUIT GARDEN there is not much to claim attention this month, provided every thing was done up in good shape before the winter set in; this, however, is not always the case, and during mild weather, which generally occurs to some extent, the thinning out of the weaker branches of gooseberry and currant bushes can be attended to; also the pruning of grapevines, being mindful not to cut too closely in pruning the strong and vigorous growing kinds, such as Concord, Wilder, Ives, Clinton, &c., leaving from six to ten buds remain, of the leading and strong canes, while the weaker side canes can be cut to two or three buds each; then such kinds as Delaware, Diana, Iona, Catawba, &c., that are less vigorous in growth, can have the stronger canes cut closer. By cutting the strong growing kinds close, it induces a rampant growth of cane at the expense of fruit, while those of feeble tendency are improved by close pruning. Every garden and every home should be well supplied with this healthful fruit, as vines can now be had of the *best varieties* at a very trifling cost; they grow with as little care as any other fruit, and are almost always certain to produce a crop in this latitude. Then too, a supply for every home can be grown on such spots and places as are not utilized for any other purpose than "weed beds." Every farmer should have a dozen or more vines of the best varieties of grapes about his home.

## Horticulture.

### Quince Culture—No. 3.

Messrs. Editors American Farmer :

Wishing to disseminate as much information on the Quince as we possess or can spare time to collect we proceed as follows :

The apple or orange, the pear-shaped, and the Portugal varieties, are the most esteemed and cultivated in the United States. We will give a more full description of these varieties.

*The Apple or Orange Quince* is very large—specimens have been raised to weigh upwards of one pound—shape similar to the apple, having the broadest part nearest the stem end—the reverse of the pear; color fine golden yellow; flesh firm, rather tender when cooked, of excellent flavor; leaves oval; blossoms large, white and red, exceedingly ornamental. Tree an abundant bearer, and ripens its fruit two weeks earlier than the pear-shaped. The fruit is excellent for preserving, canning, and for various delicious culinary preparations—matures last of September or early in October in this latitude.

*The Pear or Pear-shaped Quince* is not much less valuable or inferior to the Apple—oblong, pyriform in shape, tapering to the stem—much like a common pear. Color golden or slightly greenish yellow; flesh firm, a little dry, slightly austere as with all Quinces, astringent, of a fine aromatic flavor and delightful fragrance. Also highly valuable for preserving, cooking, &c., and the expressed liquor, in small quantities, is known to possess valuable antiseptic properties.

*The Portugal*.—Large, oblong, largest in the middle; fine, light yellow; leaves obverse, oval; flowers large and showy; flesh firm, or less tender than the Apple; and the fruit much resembles in quality the pear-shaped Quince, but not quite so fragrant. Leaf long and broad; tree vigorous and bears abundantly. All these varieties are cultivated in Britain, and this variety is considered the most valuable in that climate.

There are other varieties—such as the French Quince used for dwarfing the Pear, &c. The Angers, a strong upright grower, also used for stocks. Rea's Mammoth—ripens early in September. The Champion, matures about the middle of October—keeps until January. The Chinese Quince—of immense size, rather coarse, but desirable for its magnificent size. There are other varieties of less note.

*Best Locations*.—Almost every farmer, if he does not contemplate having a regular orchard, has rich spots about his houses and yards that are admirably suited to Quince culture, if he can keep stock from them. Also rough or stony places may be profitably occupied by the Quince that would otherwise produce nothing but weeds. As the trees don't grow large they might also be set here and there in the garden if the enclosure is large. Twelve feet apart each way in planting is about right, but in regular orchards fourteen or fifteen feet is the proper distance.

A few trees for family use in such places, if well managed, would, in three or four years, begin to prove of great value for family use. But we insist that all farmers in regions where the

fruit will thrive should have a regular commercial orchard, either large or small. When Quinces bring in market from three to five dollars per bushel, and eighty-five or ninety will fill a bushel measure, what other crop would pay as well?

He should, however, to ensure success, ascertain the adaptation of this fruit to his location. This is not difficult, as almost in every neighborhood there are bearing Quince trees, and he can see and judge how they grow and bear fruit. If he finds that good treatment has been given, and no results at proper age, of course he would not risk their culture. But in a majority of cases he would find them much to exceed his expectations, and he would lose no time in getting ready to plant.

*Soils*.—The Quince will thrive in various soils. That which is known as heavy or clayey loam, in some climates, is considered best. Others prefer a loamy soil impregnated with sand. In some regions they grow and bear well in soils rather light, gravelly or slaty. Soils moderately damp, but not wet, are said to be very suitable for this fruit; but the trees should never be grown on bottom lands between elevated hills, as they will never thrive in such places. We have tried this. Trees on adjacent hills bore full crops when the valley trees, from cold and superfluous moisture, gave scarcely a specimen.

*Culture and Manures*.—It is our opinion that improper culture is one of the main causes of failure, and the principal reason for the wide neglect of this most excellent and easily raised fruit. We believe it is not generally known that the roots of this tree or bush habitually and almost invariably run near the surface of the ground, and, of course the cultivation should correspond with this habit. But, instead, deep culture is often practiced to the destruction of the roots and great injury to the trees. Deep preparation previous to planting is right, and shallow culture with good mulching should be the after treatment, and the soil can hardly be too rich. The habit of the roots suggests the mode of cultivation. "Many of its fibrous roots are found within half-inch of the surface of the soil." It is there they feed, and hence it may be true as to their impatience of drought. Mulching will obviate this.

Except the treatment just recommended, the cultivation of the Quince may be about the same as other orchard fruits. It needs cultivation. A good thrifty Quince, in our climate, cannot long exist in a strong grass sod, as the roots of both feed near the surface and the grass will starve the tree; it will become stunted and scrubby, and soon become a prey to the borer. It needs to be kept clear of weeds, and to have frequent shallow cultivation.

The best way, however, to prevent the growth of weeds and grass is to smother them with a good coat of mulch kept constantly under the trees; which also retains the moisture so necessary for the Quince.

In planting, any well rotted manure may be used, so that it is not placed in contact with the roots, which should be set no deeper than they grew in the nursery; and when cultivated

manure may be freely spread around the stem as far as the roots extend.

**Pruning and Management.**—As a general rule not much trimming is necessary, except to prevent rubbing and chafing of branches and the shortening in of new growths to produce strong fruit-bearing shoots the following year. "*It should be borne in mind, in trimming, that the fruit is produced on the wood of last year's growth.*" All water sprouts should be removed except where necessary to fill up vacancies in the trees which may become thin from any cause.

**The Salt Question.**—Most writers on the Quince that we have examined, agree that salt is an important adjunct in Quince culture; and we are inclined to believe that a small quantity, say a pint to each small tree, and a little more for larger ones, would be beneficial to their health and fruiting. It should be sown around the trees in early spring; and some recommend that a part should be applied later, when the fruit has attained the size of a common cherry.

*Kenick, Albemarle Co., Va.*

J. FITZ.

### Orchards.

Plant your apple trees 35 feet apart, and peach trees may be planted between the rows each way, and will be out of the way of the apple trees before they become so large as to need the whole space, which they will when they attain full growth. In the last 50 years I have planted and cultivated to bearing condition five orchards, and always planted peach trees among them; and cultivated and cropped with different annual crops for ten or twelve years. By this time the peach trees would be dead and ready to pull up. In this section I would recommend planting about one-third of the orchard with Smith's Cider apple.

*Chester Co., Pa.*

T. WOOD.

### Naphthaline as an Insecticide.

At the December meeting of the D. C. Horticultural Society, Prof. Taylor, of the Agricultural Department, announced an important discovery he had made, and which would be of great benefit to farmers, nurserymen and to commerce—that naphthaline could be used most successfully in the destruction of insects, vermin, etc.

"If seeds, grain, dormant plants, vines, etc., be placed in any tight vessel, and a small quantity of the naphthaline be introduced into the vessel and it then be covered, in a few hours any insect that may infest them will be asphyxiated."

The Prof. exhibited a jar containing some Egyptian corn, which two years since had been received from California, and which, when received at the Department, was alive with small beetles. The noise of their gnawing was distinctly heard. Of course the seeds would be destroyed unless the insects were. A small quantity of the naphthaline was mixed with the seed, and very soon the noise ceased; the vermin were destroyed by its action.

To test the question whether the seeds had

been injured, he recently had asked Mr. Saunders to test their vitality by planting a small quantity in some of the propagating houses. They grew nicely. Thus showing that this substance does not destroy vegetable life when used chemically pure.

Prof. Taylor said he had destroyed mice, toads, etc., with this material.

Several foreign governments have passed laws prohibiting the importation of vines, cuttings, bulbs, seeds, etc., fearing the introduction of the Phylloxera, by such importations. Such laws must be injurious to trade. Now, by the use of this insecticide the danger may be obviated and the law repealed with safety.

*Washington, D. C.*

G. F. NEEDHAM.

[Naphthaline is a coal-tar product, and obtainable from dealers in that article.

Pyrethrum, alluded to in our December number, is to be had of the wholesale druggists at 75c. to \$1.00 per lb., according to quality. It is known as Persian Insect Powder.—*Eda.*]

### Notes on Evergreens.

*Messrs. Editors American Farmer:*

The present severe winter will doubtless prove fatal to many tender evergreens and plants, and to recent plantations of numerous varieties, usually quite hardy, from the fact of their not being sufficiently established. In filling up blanks in groups care should be taken to use only well tested sorts, and those that from their peculiarities of form and color will harmonize with such as remain.

Most persons think it a very simple matter to arrange and plant a group of trees, and so it is to one who knows exactly the habit, color and dimensions at maturity of each individual member of the group, and no one ignorant of those points should ever attempt the planting of trees for ornament.

For the benefit of those who intend planting next Spring I submit the following list, giving as near as possible color, habit and height.

*Pinus*—Pine.

P. *Austriaca*; height 120 feet; color dark green; habit upright, robust.

P. *excelsa*; 150 feet; light glaucous green; graceful, drooping.

P. *sylvestris*; 60 feet; spreading, irregular.

P. *strobus*; 100 to 150 feet; upright.

P. *pumilio*; 30 feet; dark green; low spreading.

*Abies*—Spruce.

A. *alba*; 25 to 50 feet; light green; conical.

A. *excelsa*; 100 to 150 feet; dark green; conical.

A. *Canadensis* (hemlock); 60 to 70 feet; dark glossy green; graceful, pendant.

A. *balsamea*; 30 to 40 feet; dark green; conical.

A. *Nordmanniana*; 80 feet; rich dark green; conical.

*Thuja*—Arbor Vitæ.

T. *occidentalis*; 25 to 50 feet; bright green; conical, dense.

T. *Siberica*; 15 feet; dark green; conical, dense.

*Cupressus*—

C. *Nutkensis*; 30 to 50 feet; dark green; conical, dense.

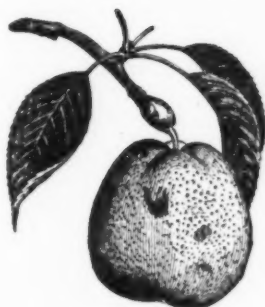
*Retinospora*—

R. *plumosa aurea*; low; green and yellow; conical, dense.

*Patterson Park, Baltimore.*

WM. FRASER.

## A Group of Winter Pears.



BEURRE D'ANJOU.



TRIOMPHE DE JODOIGNE.



BEURRE D'ANJOU.



JOSEPHINE DE MALINES.

The tree is of vigorous growth and productive. This pear is a very delicious variety, and often keeps, judiciously managed, till mid-winter.

We give herewith, by the politeness of Mr. John Saul, engravings of four noteworthy late pears. *Beurre Easter* is of large size, yellow, with a red cheek; flesh juicy, melting and rich; a vigorous grower and abundant bearer; the best keeping table pear. *Triomphe de Jodoigne* is large and uneven in shape; skin rough, thick greenish yellow, with russet dots; flesh rather coarse, but juicy and buttery; quality moderately good only, but valuable as a late keeper; growth vigorous, but somewhat irregular. *Beurre d'Anjou* was introduced into this country by the now venerable Marshall P. Wilder, of Massachusetts, who deserves therefor greater praise perhaps than for any other of his many gifts to our pomology. It is a large fruit, greenish shaded, with dull crimson; melting and juicy, with a fine vinous flavor; vigorous and productive; and, taken altogether, one of the best of pears. *Josephine de Malines* is of medium size; yellowish; flesh buttery and juicy; flavor rich, sweet and rather peculiar.

### Pleasure Grounds and Greenhouse.— February, 1881.

By W. D. BRACKENRIDGE, Florist and Nurseryman,  
Govanstown, Baltimore Co., Md.

#### Lawn and Pleasure Grounds.

Ensconced behind a warm stove, and viewing thence through the window the country around mantled in snow, which prospect causeth the mind to be somewhat oblivious of the beauties of Flora, hibernating under its surface; though we entertain a firm hope of a quick relief through an early spring. By the way, snow is an admirable protector of vegetable life from frosts.

Our winters are too severe to enable us, like our cousins across the waters, to have our Christmas Roses in bloom at that season. Neither will the Snow Drop delight us in February as it does them; but when, as the harbinger of Spring, it does make its appearance there is nothing in the flower way more pure, modest and humble; and it is a surprise to us that people do not turn their attention more to the cultivation of these, as well as the various kinds of Crocus, Harebells—*Scilla nonscripta*, also the Grape Hyacinth—*Muscari comosum*, all of which, in company with the Daffodil or English Narcissus, will thrive well under the shade of trees where the ground is good.

On sloping banks where the grass is not cut more than twice or thrice in the year, there, we feel satisfied, the English Cowslip—*Primula veris*, would thrive, and give satisfaction; but the plants to start with should be raised from seeds sown in a cold frame, in that they may gain strength before planting out permanently; after which self-sown seeds will keep up the stock. The English Daisy—*Bellis perennis*, is also very pretty in such localities, but it prefers a damp soil.

In any vacant corner of the garden or grounds, not otherwise occupied, the various double varieties of Liverworts—*Hepatica triloba*, and the modest, sweet scented Lily of the Valley, should by all means receive a place, both of which produce flowers admirably adapted for making up button-hole bouquets. Young ladies will please make a note of this!

At this season of the year all cold frames and plant pits will require more than ordinary attention, by first observing that covering sufficient is given to keep out all frosts, and, second, to admit light and air in mild weather, while all dead leaves and other decayed matter should be removed; water to be given at the root very sparingly. Rats and mice often prove very troublesome in such receptacles, by barking Rose bushes and eating Tulip roots; to get rid of these we would recommend Mr. T. Meehan's plan, which



is to "soak some garden peas in a solution of arsenic and water, then to cover them shallow in a pot of earth;" we have tried this, and find it efficacious; but we sometimes trap them by baiting with either cheese, meat or bread.

Towards the end of the month, should the weather so moderate that the ground becomes friable, then the planting of deciduous trees ought to be gone about, but on no account plant when the ground is wet, or when the earth will not crumble down freely when thrown from the spade or shovel, then it is too wet to plant with.

About the middle of the month select a warm, dry, sheltered spot, on which to construct a hot-bed, to start annual or perennial flowerseeds and Dahlia roots. A mixture of stable manure and oak leaves well incorporated will maintain a long and steady heat. This bed should be about three feet high behind, beveling down to two or two and one half feet in front, observing to carry it up level, and beat it down firm with the fork as you proceed; the width of such a bed should be about one foot more than the box about to be placed on it, and this box, with sash, should be put on as soon as the bed is formed; it will take about eight days to elapse before any seeds can be sown on such a bed with safety, owing to a rank heat or steam that may arise, to let off which the sash may be raised a little. Such a bed is the best place we know to make Dahlia cuttings root readily.

#### Greenhouse.

Dormant tuberous rooted plants, such as Gesnerias, Gloxinias, and, perhaps, Achimenes, should have a portion of their roots potted in a light, rich, vegetable earth, taking care to drain the pots well; place the whole in a warm part of the house, giving but little water until they show signs of growth.

Amaryllis bulbs require a more loamy soil, to which should be added a portion of well rotted cow manure. The tubers of the fancy kinds of Caladiums are by many growers passed through a dessicating regimen that is highly injurious; when dormant, they should be kept warm, with just moisture enough to prevent shriveling; we would advise that a few tubers of each kind be potted now, and the remainder kept as a succession.

Cut down to near the ground all Poinsettias, so soon as the points have been used up; Allamandas will also require to have the wood thinned out and shortened back, and so soon as they begin to grow turn them out of the pots, and remove at least one half of the old ball of earth, then turn them back into the same pots, in doing which use a compost of loam, manure and sand; the Allamandas like heat.

We would advise people who have them to sow all tender annual seeds during this month, also all hard wooded greenhouse plant seeds, because, by the time they make their appearance above ground, the weather will be congenial for the tender plants, and then it will be so much work out of the way before Spring sets in, for every gardener knows that it never fails to bring its quota of labor with it.

All Hyacinths and Tulips potted last Fall ought by all means to be brought into the greenhouse now; the pots being full of roots

they will stand any amount of heat which such a house can afford, that is if the requirements of other plants present is taken into consideration.

#### In Winter Quarters.

We are disposed to brag a little on some of the results in our new forcing house this winter. Poinsettia Pulcherrima twenty inches in diameter, and that by the hundred, and Euphorbia Jaquiniflora with spikes three feet long, a mass of scarlet from end to end, are results not often attained. The double Poinsettia, which created such a furore a year or so ago, is in my opinion not worth near so much as the old single variety. In the first place it cannot be had (at least I cannot get it) fully developed by the Christmas holidays, and this of itself is a fatal objection in my case, as Poinsettias are usually in my way after the holidays. In the second place the color is not so brilliant nor are the heads so large. My largest double Poinsettia head is not over twelve inches in diameter, and is not yet (January 15) fully developed, though it has been with the others in a night temperature of never less than 65° to 75°, while heads of the single sort, perfect and circular, from eighteen to twenty inches in diameter, have been cut by the bushel. If any one wants to know how to grow Poinsettias and Euphorbias to this size, I would say cut them back hard in Spring after having been kept dry for a month, plant them in the open ground in May and stop the ends of the growing shoots three times before the end of July. Lift them early in September, giving plenty of pot room. Give them the most sunny place and near the glass, and drive all the heat your apparatus is capable of in cold weather, never letting them get under 60° at any time, and you will have good heads—if you keep the red spider down. This can be done by syringing until the heads appear, but on no account let water fall on the bracts, as it will spoil their brilliancy. We depend mainly on sulphur to keep the spider off after they get in bloom, keeping the floor of the house damp, of course. The terrible cold snap we had about New Year's was a severe test of the capacity of any hot water apparatus, and we are glad to say that our Baltimore made boiler brought us through without trouble, while I hear of some new style northern made apparatus which failed to do its duty. On New Year's morning the mercury here stood at 18° below zero from midnight till daybreak, while in our hot house the glass marked 62°, with the water in the pipes at 180° to 185°. The pipes in our rose house are heated by a simple coil of gas pipe placed over the arch of a furnace, (the flue from which heats another house one hundred feet long,) yet the temperature at the same time was 55°. I said the flue heats another house one hundred feet long, I should say it does so in moderate weather, but as this house is our new forcing house we have an extra furnace and flue to help out in severe weather, so that we always maintain 60° at night, or higher at the warm end. I consider this coil the most economical hot water apparatus I ever saw. Our coil is made of eleven turns of two inch pipe, and has

attached to it nearly five hundred feet of four inch pipe, which efficiently heats our rose house, 16x75 feet, in the most severe weather. The surplus heat conducted through a flue gives us an average heat of 60° in moderate weather in another house 16x100 feet, which is as much as one fire of the same size (grate surface 18x30 inches) will do in the most elaborate pater boiler. Our large boiler is a tubular boiler, similar to a locomotive engine boiler, and was made by Bartlett & Robbins. It heats three houses, and it would heat more than twice as many more, if necessary.

It is yet too soon to ascertain the extent of damage done by the cold weather out doors, but I am inclined to think that it will not be so heavy as the degree of cold would seem to call for. In the first place the dry Fall ripened up all kinds of wood, so that plants and trees are better prepared to endure the cold. Secondly, the ground has during all the cold weather been deeply covered with snow. This will of itself be sufficient to assure the safety of our tea roses. We fear that our old Cedar of Lebanon is badly cut, and we expect a large amount of destruction of ivy will be apparent in Spring. Raspberries and blackberries seem all right yet, but the full effect of the cold will not be seen before the last of March. Plants in frames are getting on as well as usual, with the exception of violets, which show but little bloom. Celery is keeping well, and our crop turns out much finer than we expected last autumn. W. F. MASSEY.

Hampton Gardens.

## Flowers for the Beginner.—No. 2.

### Annuals, Biennials, Perennials, and Hardy Shrubs.

Messrs. Editors American Farmer:

When your seedlings are sufficiently advanced, *transplant* (the catalogues invariably say *thin*) to the distances specified in the catalogues, but as it requires more nerve than is possessed by one flower-lover in ten to thin flower seedlings, especially if they are from a mixed packet, I make use of the term "transplant," considering, as I do, that there is always room to be found in any flower-garden for transplanting all excess of seedlings over the proper distances.

Among flowers propagated from seed is a class that, owing to a long tap-root, will not bear, or are very difficult of transplanting. This class consists of *Bartonia*, *Candy-tuft*, *Delphinium*, *Eschscholtzia*, *Lupines*, *Mignonette*, *Peas*, *Sweet* and *Perennials*, and *Poppy*; and as the above are all *hardy*, they may be sown in the open border, where wanted to bloom, during the first two weeks in April, and thinned to the proper distances. (NOTE.—All reference to periods of sowing seed in this article are to the latitude of Virginia.)

Of course no flower-garden is complete without a choice selection of hardy Biennials and Perennials. Biennials referring to such plants as flower the *second* year from seed and then die, and Perennials to those that bloom the first or second year from seed and continue to produce

their flowers for many seasons. Several plants included in Annuals are really Perennials, as *Dianthus*, *Antirrhinum*, &c.

My favorites among the two classes above named, and which will be found suitable to the wants of the beginner, are, *Aquilegia*, (Columbine); *Bellis Perennis*, (Double Daisy); *Carnation* and *Picotee*; *Delphinium*, (Larkspur); *Digitalis*, (Fox Glove); *Hollyhock*; *Peas*, *Perennial*, (*Lathrus*); *Pink*, (*Dianthus Hortensis*); *Sweet William*, (*Dianthus Barbatius*) and *Wall Flower*. The culture is the same as for Annuals.

It will be noticed that I have omitted the *Canterbury Bell* (*Campanula*) from the above list. While I acknowledge the universal popularity of this flower I have intentionally omitted it, as I cannot recommend it to the beginner as a flower at all likely to accord the satisfaction its catalogued praise would lead one to expect, judging from my own standpoint.

Of climbers we will have *Balloon Vine*, (or *Love in a Puff*); *Morning Glory*; *Sweet Peas*, and *Nasturtium*. Then we must have a few good *Everlasting Flowers*, such, for instance, as *Ammobium Alatum*; *Acroclinium*; *Gomphrena Globosa*, (*Globe Amaranth*); *Helichrysum Monstrosum*, and *Rhodanthe*.

Ornamental Grasses we will set severely alone, with, perhaps, the exceptions of *Brisa maxima*, (*Quaking Grass*); *Cox's Lachryma*, (*Job's Tears*); *Glycerium argenteum*, (*Pampas Grass*), and *Stipa Pennata*, (*Feather Grass*).

This completes the list of flowers to be recommended for the beginner, propagated from seed, and with the adjuration to always buy the *very best* seed obtainable, always where two grades are offered of one variety, unhesitatingly choosing the better. Thus, for illustration, when two grades, "good mixed" and "extra mixed" are offered, take the "extra mixed," even if it costs you twice or more the price of the other, for a moment's consideration will suffice to show that from superior seed only can superior flowers be produced; and, another thing, don't expect *too much*, as for instance, that every seed from a packet of double *Portulaca*, *Carnation*, *Petunia*, or *Zinnia*, will produce a plant bearing double flowers; if fifty per cent. do so, you may congratulate yourself on the best of success.

Of course it is obvious to all that the above remarks on seed sowing are to the open ground sowing, though by far the most preferable method, one by which the utmost success may be attained, is to sow all seeds, except those that cannot bear transplanting, in boxes, keeping the boxes in a partially shaded position until the seed germinates and the seedlings attain considerable growth, bringing them into more direct sunshine a few days before transplanting them to their permanent places in the flower-garden.

These remarks close the subject of seed propagation, the only excuse I have to offer for its length being the nature of the subject, and now dismissing it, I advance to the pleasing feature in floriculture for pleasure, of summer flowering plants, hardy shrubbery and evergreens, to be entered upon by any with the utmost confidence of success.

Among summer flowering plants I recommend the following as best for out-door culture, and a

magnificent exhibition of flowers the entire season: For foliage, that unrivaled bedder, the *Coleus*, stands pre-eminent, while a few plants of *Alternantheras*, *Achyranthes*, with a specimen plant of *Caladium Esculentum*, completes the list. The following list of half hardy bulbs, tubers and plants should be liberally patronized by all: *Canna Indica*, *Dahlias*, *Geraniums*, *Zonales*, *Lantanas*, *Tritoma Uvaria*, *Tuberose*, *Gladiolus*, and *Madeira Vine*. All the following hardy plants should also be planted with great liberality: *Anemone Japonica Alba*, *Astilba* (*Spiraea*) *Japonica*, *Chrysanthemums*, *Feverfew*, *Lily of the Valley*, *Hardy Herbaceous Phlox*, and *Violets*.

As *Roses* always require a separate notice, I will give the following list of such varieties as will be found worthy of the highest commendation and extended notice, and whose truest criterion is their own excellence of flowers and the persistency with which they produce them: *Teas*: *Bella*, pure white; *Bon Silene*, purplish carmine; *Safrano*, orange yellow; *Isabella Sprunt*, canary yellow; *Duchesse de Brabant*, light carmine, and *Duchess of Edinburgh*, crimson. The above are the recognized colors, but I find on young plants they are often quite changed, so do not condemn the plant or censure the florist, if the colors should at first differ from his descriptions.

Among *Noisettes* *James Sprunt*, crimson; *Reve d'Or*, (*Climbing Safrano*.) buff; and *Marechal Niel*, canary yellow, are my especial favorites. Of *Remontants* or Hybrid Perpetuals, *General Washington*, scarlet crimson; *La France*, satin rose; *Madame Charles Wood*, brilliant red, and *Peerless*, rich crimson, are among the best of many superior sorts. Then we must have some hardy climbing *Roses* for covering arbors, trellis work, &c. With *White Macrophylla*, (known here as *Laurel Rose*.) *Queen of the Prairie Rose*; *Greville* or *Seven Sisters*, and *Multiflora*, with a combination of colors, I can desire no more additions, while a variety or so of *Moss Roses* completes the list.

The transplanting of the above *Roses* and hardy plants, (*Roses* can with equal safety be transplanted in the fall, many considering it the most preferable season,) finishes the additions to a newly formed flower-garden during the Spring months. Set half-hardy plants and bulbs in the open ground at the time you sow seeds of half-hardy plants, during the month of May, and nothing remains to be done but keep your garden from weeds and grass, and to enjoy the well earned fruit of your labor—the beauties of your flowers as they come into blossom, until the drear months of October and November.

At this time you must purchase your stock of hardy herbaceous shrubs and evergreens; for do what you will, consider as you may, no flower-garden is complete without a liberal quantity of these, for until they are added it will appear lacking something to relieve it of its sameness.

You will want *Calycanthus Floridus* for its delightful fragrance; *Crape Myrtle*; *Pomegranate*, *Duetzia*, *gracilis* and *crenata flore pleno*; *Althea*, in varieties; *Syringa*, *Purpurea*, and *Alba*; *Spirae*, of varieties; *Snowball*, *Hydrangea*, *Pani-*

*culata Grandiflora*—all hardy herbaceous shrubs and small trees; as well as *Clematises* of varieties, *Jasminum Officinalis*, and *Wisterias*, of varieties, hardy herbaceous climbers.

Then you must have for covering arbors and trellis work, the hardy evergreen climbers:—*Honeysuckle* and *Woodbine*, as well as the *English Ivy*, indispensable for covering trunks of trees, walls and other unsightly objects.

Among hardy evergreens I name as excellent: *Norway Spruce*, *Narrow-leaved Box*, *Tree Box*, *Euonymus*, of varieties, *Irish Juniper*, *American Arborvitæ*, *Compact Arborvitæ*, and *Magnolia Grandiflora*.

This completes the list, and with a choice selection of hardy bulbs (see my article in December number *American Farmer* for a list of varieties and their culture) the flower lover may reap untold pleasure and instruction in their cultivation.

W. G. IVY.

Warwick Co., Va., Dec. 10th, 1880.

### Vegetable Garden.—February.

Recurring to the subject of my last communication, I would say that the garden there described, minus the frame ground and brick wall, would be just right for a farmer's garden, while for the man of means, determined to have a thoroughly good garden, regardless of expense, some further suggestions are necessary.

The soil of a really perfect garden should consist of a surface of friable loam, at least 4 inch in depth, manured to a fault and subsoiled as often as there is an opportunity to do so. The garden that cannot come through an ordinary drought unscathed; that cannot be plowed until after the next rain—a most unsatisfactory date—has no claim to be considered a model garden. If the soil is not naturally friable, means must be taken to make it so. The regular manuring will help in time, and coal-ashes where they can be had in quantity, are excellent for this purpose. The greatest improvement of all would be a system of irrigation; but this, I believe, is a feature that in the majority of places even money could not introduce. Of the extraordinary advantage of having the means of irrigating even a small portion of the garden no one can doubt. Peter Henderson relates that in one unusually favorable season he sold the *Cauliflower* from a single acre for nearly \$3,000, whilst on another occasion—doubtless a dry time—the crop was a complete failure. In this vicinity they are a most uncertain crop, and many other garden products suffer almost regularly from thin soils and droughts together. With abundance of moisture our lettuce would not run to seed before the plant had attained full size, nor would our celery be, as is too often the case, the mere shadow of what it ought to be.

A very desirable appendage to a garden would be a good vegetable forcing house; also, a house specially erected for growing mushrooms. Gentlemen who spare no expense, in order to have fine lawns, might do well to go a step further and show us a good kitchen garden. I confess I have never known one come anyway near



to the foregoing requirements, to say nothing of further suggestions that others might readily make. There has always been something wrong, favorite trees in the way, water temptingly near, but no means of applying it, a stinted supply of manure, a hilly location, or an undrained flat, and often enough an absurd imitation of a European garden; absurd, because entirely unsuited to our implements and our methods.

I have dwelt on this subject because the kitchen garden is the one department of gardening in which there is decided room for improvement. Families scout the idea that the supply of small fruits and vegetables should be affected by drought or any other cause, so long as they keep a gardener and a piece of ground they call the garden. Let them see to it that each has a garden in reality as well as in name. There is nothing to prevent the gardens of the wealthy being largely independent of unpropitious seasons, in the certainty of producing full and regular crops; and is this not a matter worthy of emulation by those who have the means and the disposition to make the most of country life?

And the mention of country life recalls a vigorous article, which lately appeared in your columns, with regard to the flocking of country lads to the great cities. It is something we all deplore, but yet there are causes at work, to bring it about, that render all our advice and wishes in that respect abortive. Because one is born on a farm, it does not follow that he will take kindly to farming. The bent of his mind may lead him to some vocation entirely different. The prospect of a penniless youth saving enough at farm service to buy a farm is slim indeed, and I have seen enough of pioneering to know that it is a life that only a small minority of even country bred youths have the courage to grapple with. The advice to city folks to "Go West," is only good to the few, who succeed, the majority lose their little means in the experiment, and I presume it is pretty much the same with those who go to the city. Each must weigh the matter well and use his best judgment.

February wakes us up to think of making hot-beds; but we are generally in too great haste. Let it be near the end of the month, or into March, before the seeds are sown. If gardens *were* gardens, we might often get in a great deal of seeds this month out-doors; as it is, we must be more particular to watch the condition of the ground. Plan out where the various crops are to go. It is a great help, in the busy season, even if it is impossible to carry the arrangement out literally. Reading and thinking are perhaps of more importance at this season, than actual work. Collecting and preparing manure will be in order; also, providing straw mats, bean poles, &c.

Baltimore Co., Md.

JOHN WATSON.

**THE FRUIT CROPS.**—Great diversity of opinion prevails as to the effect of the severe weather upon the peach and pear trees.

**MANURES AND COMPOSTS.**—Frequently, when little other work can be done, materials for these may be accumulated and worked up.—Do not neglect it.

## Trucking in Anne Arundel, Maryland.

Messrs. Editors American Farmer:

Thinking perhaps your many readers might be interested in a description of the "trucking" business of our county, its growth, extent, &c., I will herewith attempt to give you a short account of it:—Anne Arundel county, aside from being one of the oldest and best known counties of the State, is also unequalled for the great variety of its soil and productions; its entire northern and eastern half being nothing less than a large market garden. Nature seems to have favored it more highly than most other sections of the State, as can be readily seen by looking upon its map, it being indented far inland by a number of deep creeks and rivers, thus favoring transportation of its products to the Baltimore and other markets, beside having the advantages of three or four railroads.

Many of our middle aged inhabitants can remember when the farmers of this section depended upon their meagre crops of tobacco and grain for a livelihood, but then small patches of "garden truck" only were grown, Baltimore being but a small local market for such things, without its present unequaled facilities for shipping and canning fruits and vegetables. Gradually the small patches of "truck" enlarged until they became fields, and at the present day many of our gardeners have over one hundred acres planted in one kind of fruit or vegetable alone. Every kind of fruits and vegetables natural to our climate is grown here, and I would here suggest that many of our gardeners have *too great* a variety. Baltimore being the largest establishment in the world for the canning of such products, an additional impetus has thus been given to their growth here, for without the packers of Baltimore but a small per cent. of the present quantity raised could be marketed. Notably in this particular have the crops of peas, tomatoes, beans, green corn, &c., increased from year to year, many of our farmers making large private contracts with canning houses to supply them with fruit and vegetables, which have not only a national but a world-renowned reputation for excellence.

The acreage of strawberries is beyond doubt as large in this county as that of any other section of the United States. "Strawberry time," being our harvest time, is looked forward to with great hope and interest by our people, being alike to young and old, high and low, the great time for gathering in of pocket change and settling of old scores. A disastrous strawberry season usually has the effect of "unsettling" things for the whole year. The larger proportion of this crop is shipped to northern and western cities, the facilities for shipping having kept even pace with the growth of the fruit business of Baltimore and its vicinity.

That portion of Anne Arundel lying between Curtis' Creek and the Chesapeake Bay is noted especially for its great crops of cantaloupes and water melons. Having water transportation at command and ready access thereby to the Philadelphia and New York markets, our farmers near the water courses are largely engaged in their production. The wharves around Balti-

more present a novel and enlivening sight in Summer, the cantaloupe and watermelon trade being no small item of its business traffic. But our gardeners have much yet to learn of the business of successful fruit growing, too much attention being paid to quantity rather than quality; but gradually we are waking up to this fact, and each year sees marked improvements in this direction. Our business is not always a profitable one, the cost of production often amounting to more than the sales therefrom. Manure and fertilizers have to be used on every crop, the cost of which amounts to a considerable sum, and only by careful cultivation and attention can we expect to make the business profitable. Even then we are not always sure of paying prices, owing to gluts in the market, caused by over production and inferior products. From the present outlook an increased acreage is to be grown the present year, especially of peas and tomatoes. Our farmers are busy hauling their cabbages, getting their manure, and making other preparations for Spring work, which will begin with the first few warm days in February. Hoping in the future to be able to give my experience with some of our fruits and vegetables, I am,

R. S. COLE.

Anne Arundel Co., Md., Jan. 11.

### Trucking Notes.

#### Forcing Asparagus. Peas and Strawberries. Trials of Cabbage Seed.

*Editors American Farmer:*

According to promise I give the result of my experiments in forcing asparagus, and planting peas and strawberries referred to in March, '80.

Two years ago I had planted a piece of ground, 7 feet wide and 200 feet long, thickly with Conover's Colossal Asparagus. Last February I ran a board, one foot high, on the north and one six inches high on the south side of the strip, exactly as we set cold frames. The asparagus had been cut lightly the season before, and was cleared off in November and covered with four inches of horse manure. This was worked up with a three-horse springtooth cultivator, and two bushels salt and one of Peruvian guano sown and harrowed in. I then sowed with Wakefield cabbage seed, put up the boards, covered immediately with glass, protection being given at night by mats.

In nine days I saw the first shoots, and in fourteen days cut two bunches, which sold at 80 cents per bunch. The glass was left on till April 1st, when it was used to protect tomatoes; there having been sold to that time \$36 of asparagus. We continued cutting from the bed through the season, and from the poor growth made in the Fall I am sure we should have stopped cutting much sooner than we did. Unless one has a surplus of glass there is too much work in thus forcing this crop, and I shall not repeat the attempt. The cabbage plants sown did very well.

The five acres of peas and strawberries did nicely. Small peas were planted the first week in March, in 4 feet rows; well rotted compost and Agency's Favorite used in the row. As

soon as they made their appearance, with a very small plow a small list was thrown in the centre, and strawberries (Sharpless and Chas. Downing) planted 18 inches apart, by removing the moist earth with the hand, so they would stand nearly on a level with the surface; they were then worked with a narrow cultivator. When we had finished picking the peas, which paid well, we bar-plowed the strawberries so as to completely cover the pea vines. In one week worked the list down with the Davis drag, and continued to work every ten days. When the snow came they formed a continuous line of strong, stocky plants, about 2 feet wide, that encouraged me to hope for a handsome return next June.

I know it is not the custom of growers generally to cultivate in the Spring before picking, but last Spring I gave four acres of Wilson Albany's two workings, the first with the Davis drag, deeply, and the second with the Iron Age cultivator, lightly; and followed with ox-carts astride the row, mulching with sea-weed and straw barn-yard manure. The yield was nearly doubled on the mulched portion, they selling for nearly \$300 per acre. The season was remarkably dry. By the way, for a shipping and yielding berry, I think Wilson still stands No. 1.

The cold weather caught many of us before we had finished planting cabbage for next Spring. I have planted with my own hands for experiment, two rows each, side by side, of distinctly labeled Wakefield cabbage plants, from Norris' imported, Peter Henderson, Bolgiano, Landreth, and Medart's Connecticut seed, on a piece of ground on which I have never failed to grow my best. Forty cart loads of garbage were plowed down and up, and 700 lbs. guano harrowed in before making the lists.

I have asked that a committee of five well known growers be appointed to note results and report next July. I sowed the seed myself, as well as set out the plants. I am glad to be able to report that our talks and meetings once a week for six years have not been in vain. As a result, our people and farms are rapidly improving; and I feel assured that our children will be better able to defend themselves from the greed of monopolies and the steady encroachments of political partisans. Many who did not even see an agricultural paper now take and read three or four, among which the old *American Farmer* is a general favorite.

THOS. B. TODD.

North Point, Maryland, Jan. 27, 1881.

### Growing Peas.

*Editors American Farmer:*

At your request I give the following mode of cultivating peas in this county. They are grown very extensively here, many growers sowing as many as one hundred bushels in one season, and employing from one hundred to one hundred and fifty pickers. For early we sow here the Extra Early; for succession the White Marrowfat and Blackeye Marrowfat.

In planting the Extra Early select any time after the middle of February, when the land is in proper condition to plow, a piece of clean medium good ground, not too rich, or there will

be too much vines; plow, mark off rows about three and a half feet apart, as shallow as possible, say three inches deep, with one horse plow, then sow at the rate of five pecks to the acre. Manure with well rotted barn-yard manure, well shaken up, so that it can be strewn up the drill evenly, about ten two horse cart loads to the acre; then take a one horse plow and throw as light a furrow on them as possible, so as to cover the manure well.

Do not harrow before planting, unless the ground is very rough, as the Spring rains and winds will bake it so that it will be almost impossible to do anything with it.

When the peas have sprouts about an inch long take a two horse harrow and run across them, this will loosen up the soil so they will come through. When they come up take a chisel tooth cultivator and run as close to them as possible, without covering them up too much. In a few days they will take the cultivator; after this the double shovel plow will be all that is necessary; run through them about twice, hilling them as much as possible.

When done planting the early ones, if the weather permits, we follow on by planting the Marrowfat sorts. These do not require as good ground as the early sorts. We generally plant in our last year's corn ground, being clean of all filth. We plow, mark off rows about four and a half feet apart, as shallow as we can with one horse plow, then sow about one bushel to the acre; manure with well prepared stable manure, about six loads to the acre; cover and cultivate the same as early sort. We consider a good yield to be about one hundred bushels to one bushel's planting. Last year the average was about fifty to one. We clear the ground of early sorts about the first of June, Marrowfats about first of July, so as to follow with late crops, such as cabbage, tomatoes, late corn, &c.

A. A. Co., Md., Jan. 19, '81.

A. RIDER.

### Growing Celery.—Tramping Seed.

*Messrs. Editors American Farmer:*

In the April number of last year of your valuable journal I promised to make another experiment in growing celery for Winter consumption by the row and trench system, and then supposed that by this time I would be able to compare notes with others who are interested in the best and cheapest way of growing this valuable crop; the fact is I made no experiment, and as I think the failures of the correspondents of agricultural papers are fully as instructive to those who seek information from their columns as are the successful ventures which are sure to be recorded, I will proceed to give the reason why I am unable to report a fine crop of celery grown in rows and trenched for winter preservation.

I sowed celery seed sufficient to produce me 30,000 plants, but the weather being extremely dry in this locality at the time of sowing, I did not get more than 10,000 plants; and as it requires 10,000 heads of celery to supply the table of my employer, I could not afford to experiment

with this number of plants, and therefore planted all on the solid bed system.

My failure then in no wise changes my formerly expressed opinion that better celery can be grown in rows three feet apart, the plants six inches apart in the rows, taken up in the Fall and put away in trenches for the Winter, than can be had by growing it in solid beds, and that the former is also the cheapest way.

From what I have already written it will be observed that my failure was with my seed beds, and drought the cause of it; but there was another reason why my celery seed did not produce me the amount of plants to be expected from the quantity of seed sown, and of so much importance is it that I feel bound to record it here that others may be saved from like loss with myself.

It has been my practice for some years past to tramp in with my feet, not only my celery seed but many others, more particularly turnip seed, and so firm the soil about it that the bad result of a long continued dry spell would be in part overcome. Last Spring, being short handed and heavily pressed with work, I neglected the tramping in of one of my celery beds, and in consequence the bed which should have produced me 15,000 plants did not produce 2,000, whereas, the other bed of equal size produced 8,000; the result proving that I lost 6,000 plants by neglect to tramp in the seed; and this loss I observe is nearly the same as that by drought, for from all past experience I know each bed in a good season would have produced 15,000 plants; the dry weather then caused a loss of 7,000 plants in each bed, and the failure to tramp in the seed a loss of 6,000 in the untramped bed.

I had another evidence of the benefit to be derived from firming the soil of a seed bed, which should not be omitted here, as it tends to prove that unless your ground is too wet to work at all there can no danger result from hard tramping of the soil. While working ground next to celery seed beds one of our horses got on the bed and set his hoof three inches deep in several places directly over the seed sown, and just in the hoof-prints the plants came up so thick, and kept so much ahead of all others in the same bed, that I wished the old horse had tramped up and down every row of it.

I will tramp next Spring, and then will be able to try the row and trench system. My Fall sowings of spinach, kale, cauliflower, cabbage and lettuce, were but a partial success, owing to continued dry weather; the plants came up sparsely, making but little growth until the October rains, when they pushed ahead, and all that did come up made very good plants. Such kinds as are left out over Winter I suppose will be benefited by the heavy covering of snow they have had. Mine were in good trim when the snow fell, and as they have escaped the severe freezing they would have encountered if not covered, I anticipate a fine crop as they stand, and am only too sorry they do not stand thicker than they do. I believe in giving plants plenty of room in which to develop their full size, but these of mine I think have a little too much space to make what I consider a heavy crop.

CHAS. E. SANFORD,  
Gardener Mt. St. Mary's College, Fredk Co., Md.

### Plowing Garden Ground.

*Messrs. Editors American Farmer :*

Mr. Watson, in your December number, speaks of laying off ground into small lands for the winter, so that it may be drained by the furrows, thus leaving it in better condition for early working in the Spring. In working low wet land, or strong clay ground, we make a point of having all possible plowed in Autumn, but leaving no dead furrows, by throwing the whole of it into ridges. If we have a narrow piece of land, as sometimes in a garden, draw a furrow through the centre, return with the plough nearly in the same place, thus throwing open a furrow, but not quite full width, nor quite as deep as the ground is plowed; then, having opened the furrow, return with the plow on the outside of the first furrow, back on the outside of the second, and so continue turning to the left at each end until the whole is plowed. Run the plow both ways up the furrow first opened, taking a small piece from the ridge, or either side of it. This will leave the land in ridges high and dry; the frost will penetrate every inch of soil; one may get upon it early in the Spring, and it is easily worked down and got into fine condition.

Perhaps this will not be understood, and yet one could hardly make it plainer without illustration. It will, however, be understood that the whole of the ground is not entirely removed with the plow; to this, however, I have no objections whatever; as, if I had the means of cultivating my land thoroughly, without reversing it, I would do so, and never reverse the soil except to bury something.

Those who wish to plow the entire ground can split the ridges, still leaving it in the same shape for the purpose of keeping it dry, and also for the beneficial action of the atmosphere. It is a matter of surprise to us that farmers who have strong clay land do not throw up their ground in this form for the winter, seeing that the most serious objection to fall plowing is the fact that heavy spring rains cause the ground to run into a mass necessitating re-plowing, thus rendering Fall plowing labor in vain. Many farmers are doubtful on the matter of Fall plowing, not deeming it of sufficient utility to fairly test the subject.

N. F. F.

**THE BELLE CITY FEED CUTTER.**—From an inspection of the operation of this machine, we believe it one of the best and most effective in the market. Any of our readers who need a feed cutter are advised to call upon or write Mr. Mott, whose handsomely displayed advertisement is to be found in our advertising supplement.

**MR. A. B. FARQUHAR**, of York, Pa., whose advertisement appears in this number, is now the largest manufacturer of implements and farm machinery in this country, and, as he believes, in the world. His establishment, fitted with the most improved appliances, is run to its fullest capacity, and its products are largely exported, as well as distributed to every section of the United States.

### Home Department.

OUR HOME DEPARTMENT has met with so much favor among the readers of *The Farmer* that we are disposed to extend its usefulness and privileges by every means in our power. We have therefore concluded to devote the requisite space to a system of questions and answers in regard to domestic matters generally, which we are led to believe will be of real practical benefit to many housekeepers within its sphere.

This will enable those who have neither time or inclination to write a regular letter for publication to send us simple questions, in regard to such matters as they are especially interested in, and our contributors who really wish to meet individual wants will know just what is desired.

In pursuance of this plan, questions sent to us by the 18th of each month will be placed in the hands of competent parties to furnish the desired information, and the answers will appear in the next issue.

### On Women Keeping Silent.

In a recent number of the *American Farmer* I noticed a hope expressed that there might be an awakening among those who value the Home Department, and that they would express their interest by contributing their thoughts for the benefit of the many. I rise on this occasion to say that we would gladly do so if we could. It is not because of perversity of spirit that we will not write, but because we *cannot* do it to save our precious lives. I speak for myself as well as for a vast majority of the sisterhood, scattered about in these country homes; ladies who do not lack appreciation, neither do they lack ideas upon any subject that they converse upon in the parlor; but when it comes to reducing those same ideas to writing, that is quite a different matter. And that which in conversation is sprightly and interesting, when viewed in black and white becomes so tame and spiritless that a merciful consideration for the Editor's amiability compels us to commit the offending article to the flames and thereby save a reckless waste of postage stamps.

A talent for writing is a "gift of the gods," and, like all other talents that we have ever heard of, is capable of more or less development, and the time to commence that cultivation is in childhood. And alas for us! our childhood is a time long since passed away. But I would like to say here that I consider the practice of writing compositions a most excellent exercise for children, and I would be glad if in our public schools to that branch of education was given more attention. It certainly would tend to develop any dormant talent our children might unconsciously be possessed of, and give them a better use of language than they can acquire by any other means. And I fancy the coming woman will find greater need for this accomplishment than we of our day and generation.



Let not our good friends, Mrs. Bristol or Ceres, (we often wonder who Ceres is) get discouraged in their good work, or harbor for a moment the thought that they should "partially withdraw from the field." Not at all, dear friends, we would help you if we could, but most of us lack capacity to do more than respond yea and amen when you write for us what we could not possibly write for ourselves. The situation reminds us of the school-master's visitors; you recollect one of them had to do the talking and all the others could say was "them 'air is our sentiments too."

CARRIE SNOW.

### Scarlet Fever.

Scarcely any other of the various diseases that are acknowledged to be contagious, fill the public mind with so much alarm as the one mentioned above. There are in almost every community sad histories of its desolating power, that justify these grave apprehensions, and it therefore behooves every one who has a precautionary word to offer, to let the world have the benefit of it. I am fully persuaded in my own mind that under providence, the faithful physician of ordinary skill can control most cases of the disease, if called in season and his directions implicitly obeyed, unless there is some counter-agent beyond his knowledge or power to control that frustrates his efforts.

Every house-wife ought to know, but does not, that she may in the first place be justly held responsible for its appearance in her midst, if there is about the premises any want of proper cleanliness or ventilation; and when from these causes or from other sources it has come among them, she is likewise responsible that it shall be held in check by every housewifely care. I don't know that I can better explain myself than by giving my own recent experience, under the direction of a careful physician.

Holiday season was upon us with its usual gathering of young people, when my domestic machinery came to a halt through the indisposition of a half grown colored boy, who waited at table, and was also in constant demand all through the house. His symptoms, sore throat and fever, suggested only a bad cold, for which I treated him carefully for the first twenty-four hours myself, giving him first a gargle of one teaspoon of salt and two of vinegar, in a glass of water, until I could procure from the druggist the two drachms of Chlorate of Potassa, which dissolved in one pint of water is my standard gargle, by direction of my family doctor. He also approved of alternating the two. I only mention these in order that a patient need not be left without attention while the doctor is being summoned, which in the country sometimes involves a delay of several hours. At night my patient was put to bed with a hot foot-bath, in which was dissolved a teacup of salt and a half cup of mustard added. I fully expected under this treatment to see him at his post in a day or two, but when I found him no better in the morning I knew it was a case for the doctor to deal with, and he was accordingly sent for. The doctor came, and for two days attended him faithfully, without a suggestion or a thought on

my part of the fiend that was lurking in our midst, probably because there had been none of it in the vicinity, and the boy was not in the habit of going away from home at all. What I have now to reproach myself with is that I did not, as I most certainly shall in the future, look with suspicion upon the first suggestion of sore throat and high fever, and bring disinfectants into immediate use; but, as I said before, I never once thought of it, and continued to go in and out freely between him and my family, until on the third morning the doctor called my attention to a rash on his breast, back and tongue, and pronounced it a well defined case of Scarlet-fever.

A thunder clap in the midst of the snow storm then prevailing would not have given me more of a shock; I had a house full of young visitors, some of them several hundred miles from their homes, and all of them with numerous plans for pleasure awaiting them, besides the danger threatening my home circle. Shall I confess that for one brief moment the temptation presented itself to take every precaution possible, without proclaiming the cause. I am thankful, however, to say that it was only for a moment. What would all their plans or pleasures come to if death or disease should chance to lay its hand upon even one of them? I left the poor little fellow sadly, closed the door that communicated with the main part of the house, and locked it, in which condition it still remains. A messenger was immediately dispatched for the disinfectants recommended by the doctor: Carbolic Acid and Chloride of Lime. In the meanwhile a family council decided that our young visitors had better leave the house, and those living nearest kindly invited the rest to go with them until they could communicate with their parents. I declined, however, to let my own daughters accept the same proffered hospitality, because of the possibility of their being already infected, and also because I have little fear of the spread of the contagion after one is aware of its presence. It was indeed a sad ending to the pleasure of the past few weeks, when through the drizzle and sleet of one of the gloomiest of Sunday afternoons, we watched a cart load of trunks and a carriage load of forlorn maidens wending their way down the road toward the depot. Every part of the house was by this time filled with the odor of Carbolic Acid, even the letters dispatched carried a hint of it with them, and the different members of the family used it in their bathing water.

When I sometime since advocated strongly a room expressly for washing purposes, separate from the kitchen, I dare say most of you thought me in proud possession of one, but not so; it was then only an object of my ambition; a kind providence and a kind husband have since provided me with this long wished for comfort, and upon this occasion it has proved a blessing in a manner not contemplated. The boy's bed room, (and present hospital,) is above this wash kitchen, with a stairs leading directly from one to the other; both are semi-detached from the other kitchen, *i. e.*, they have a passage which is closed in winter, and open in summer. The cook, who is sister to the boy, was detailed as nurse, and left in lone possession of the wash-room, which is as nice and comfortable as any other kitchen,



and has a cooking stove that also heats the room above in the coldest weather. The door opening into the intervening passage was only opened to take in medicine and provisions, previously set on a table by it, there being also a door leading directly into the yard, through which she can bring in wood, carry out slops, &c. This passage and the one above it are strongly odorous of Chloride of Lime, and Carbolic Acid was given them to use freely in both of the rooms of which they had possession, with special directions to put it in every vessel in use, that was not required for food. The same care has been adopted about the house. It is now ten days since the disease appeared, the patient is convalescent, and no new developments of the disease. His clothing and that of the cook have graced the garden fence whenever it was not in use, or the condition of the weather prevented. I shall now proceed, by the doctor's direction, to have the boy brought down by the stove, while his room is thoroughly fumigated with burning brimstone, then whitewashed, his bed washed and filled with fresh straw, covers washed, and a general scouring has thoroughly removed every trace of the disease. He can then return to the room, when perfectly dry, and the process be repeated below. I will not allow him to mingle with the family for at least two weeks from now, and will for some time after that keep him from exposure to the weather. All of these precautions are an expense and trouble, but much less, probably, than the absence of them would occasion. It is one of those cases where "an ounce of prevention is" most emphatically "worth a pound of cure." I sincerely hope I shall be able to report next month the perfect success of these measures in preventing the spread of the dreaded disease. At any rate I will not have to reproach myself with any want of care. I have also informed every person who approached the house, before allowing them to enter; they might then use their own pleasure.

Physicians are often slow to sound the note of alarm, lest it may form a false one; but they should rather consider the possible consequences of withholding even a suspicion of danger.

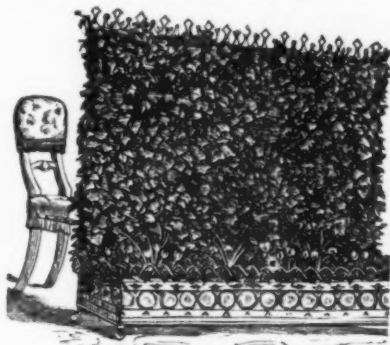
A tender regard for the patient may be observed without endangering the lives of others unnecessarily. Remember that while the sick person may pass safely through the ordeal, others to whom they communicate the disease might die from it. If humanity demands the risk from some one, let the selection be from those upon whom the duty naturally devolves, and confined to as few as the case will admit of. Where the duty falls, it should be accepted in the love and fear of God, and a stout heart, and unselfish devotion will almost invariably carry the faithful nurse safely through the danger.

CERES.

### An Ivy Screen.

In our last, directions were given for making screens of upholstery goods, but now we give an engraving of one where Nature is laid under contribution to afford the material, and the effect of which will, doubtless, have an attraction the others lack. Such a screen cannot be made in

a few days or weeks, but requires time, care, and patience. Provide a strong box of the length required for the screen; line it with zinc and make holes to permit all surplus water to escape, provide it, if possible, with casters or rollers, and



then fill it with a mixture of silver sand, peat or leaf mold, adding a small quantity of soil scraped up in the barn-yard. Some old pieces of crocks or brick broken up coarsely may be placed in the bottom before the soil is put in to secure drainage; then fill up to within an inch of the top. Plant either well rooted slips, or cuttings, and then give water whenever required, but do not keep the soil constantly soaked. When the plants begin to grow carefully tie them to slender stakes until they are three feet high, and then put up the frame for the screen, which should be of wire, painted green, and of any design to suit the fancy or purse of the owner. As the plants grow the small shoots may be drawn through the meshes of wire, and interlaced until both sides of the screen become a solid wall of "Ivy Green."

### Early Home Training of Children.

There is one theory of my own in regard to my children which I have carried out against a good deal of opposition, that is, that they should not be sent too early to school. I would allow no child of mine, however healthy, to attend a public school before or even at the age of seven. I do not say that before that age a child should learn nothing, on the contrary I would in those early years lay the foundation of all that is excellent in training, namely, firm religious belief, making the Bible attractive by means of its many beautiful stories of oriental life. At a very early age I would slowly read to the little ones those inimitable books "Peep of Day," "Line Upon Line," "Precept Upon Precept," and "Scripture Facts," simply Bible stories and history to be in the plainest language. It is generally admitted that the public schools of Philadelphia are admirably conducted, yet medical examinations show that the ventilation is exceedingly imperfect; in fact it is said that the supply of fresh air is insufficient in any one school to last the scholars healthfully fifteen minutes unless a window is lowered by order of the teacher. We

all know how likely teachers are to give such command, and we also know that ventilation is not a whit more popular in Baltimore than Philadelphia. Then, too, careful examination of the pupils by skilled oculists show alarming results. The statistics given by Doctor Shakespear show that a very large per centage of children who on entering public schools have good normal vision, on closing the prescribed course of study, have become myopic or near sighted—a very great disadvantage in the race of life.

At home I accustom my boys to hold book and paper as far from the eyes in reading or writing as they comfortably can; in the schools the arrangement of light and desks is such as to seriously impair vision. Much may be saved a child by the use of a few elementary books in which knowledge is easily and pleasantly conveyed. I never taught my children a letter of the alphabet. They learnt them from the Milton Bradley Building Blocks before I knew it. Peter Parley had a great gift in writing histories for the young, and there is a very small history of the United States (Cowperthwait) which combines story and history in a very pleasing way, each chapter of history being followed by another in which some incident of the time is told, a story of Indian warfare, revolutionary courage or patriotism, or early hardship and struggle, which a child does not easily forget. The American Series of Primary Spellers, Mitchell's Geographies, (Butler,) are excellent; and so much progress has been made in school books of an elementary character that a child is taught and progresses while really apparently only amused.

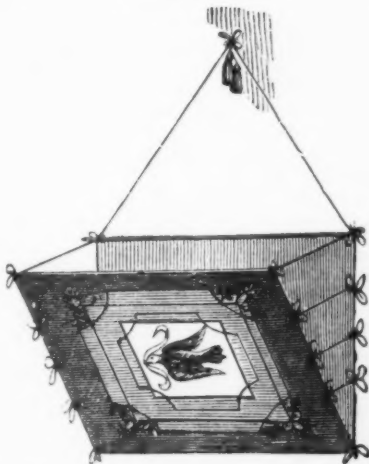
I have long felt the need of a simple child book on astronomy. "The Sun, Moon and Stars," a late work, illustrated, (Carter's,) answers this want. Isa Craig Knox has written a Young Folks' History of England, (Lee and Shepard,) which is simplicity itself, and charming. All pictorial representations are invaluable. Part of my Sabbath training consists of looking over picture cards on Joseph, Daniel, Bible events, Jewish Months and Festivals, Sea Weeds, Places of Historic and Religious Interest, etc., etc. From the publications of the American Tract Society, and some imported ones of T. Nelson, I have made a little collection which is a source of great interest and enjoyment to my little ones.

Many ingenious devices help to advance a child. Thus a friend to whom my oldest boy was much attached told him she would not come to see him until he had written her a few words of invitation; thus stimulated, the child quickly penned a few large intelligible words, and a correspondence was thus begun which has been a great advantage.

In reading it is a good plan to simplify as one goes along, for very little children, as some books require it. With a little thought in this way books that are really far beyond a child's comprehension may be made clear and interesting. Ask them every now and then to give you their ideas about it, and so keep up the interest. Many will say I have no time, I must send my children very early to school to get them out of the way.

Ah, my friend, think seriously; make the dress plainer, the sweetmeats and dainties fewer, but in these first tender years keep the little ones at home, and lay broad, deep foundations of faith, as a mother only can, that will withstand the shock of future storms. J. B. M. B.

### Wall Pockets.



In the January *Farmer* there was a suggestion of how to make these useful and ornamental articles, which are so convenient in a sitting room or library for holding small objects. Above we give a cut of one of different construction. It may be made of pasteboard covered with worsted work, the pattern worked on a perforated card; or of colored paper, on which some neat and tasteful figure may be pasted or gummed for a centre piece. Lace the sides together with a bright colored cord or ribbon, and hang with the same against the wall. They are convenient and pretty.

### Domestic Recipes.

**TO KEEP CELERY FRESH.**—When prepared for the table wrap it in a wet cloth and lay in a cool place, it will be found quite fresh and crisp at the end of several days. C.

**TO AVOID GRIDDLE SMOKE.**—Have your griddle perfectly smooth by rubbing with salt, then cut a turnip in two across the grain, and use one-half at a time with a fork as you would an ordinary "greaser." I have known of this for years, but a fear of the flavor prevented me from ever trying it. This winter I was persuaded into its use, and am surprised to find how perfectly it works, and without a trace of its flavor being imparted to the cakes. C.

**RICE CAKES.**—Use all the rice that is left over from dinner, say about a large cup full; to this is added the yolks of two eggs, well beaten with a patent beater, for it is really inexcusable for any cook to throw in the yolks without first beating them to a cream, which will take less than one minute with a patent beater. Add a teaspoonful of salt, and milk enough to work up the pint of fine flour that is sifted in; lastly the whites, and just as you are about to begin baking put in a large teaspoonful of yeast powder. These cakes are delicious. The griddle should be hot, and when first put on the stove a little salt allowed to burn on it. The best and most economical grease for griddles is a piece of fat ham, cut with the skin on. A piece the size of an egg should last several mornings.

### Maryland Granges.

**FREEDOM, No. 139, CARROLL COUNTY.**—After being asleep for a year some of the members came to the conclusion that it was time to wake up and go to work, consequently a few of us decided that we would invite our Worthy State Master, H. O. Devries, to make us a visit, and see if he could not instill new life into those members who had become so luke-warm, which he consented to do, naming January 15 as the time. We made an effort to rally our forces, and succeeded in getting twelve of our members out to listen to the very eloquent and forcible address of our Worthy State Master, which had such an effect upon those present that they concluded to re-organize our Grange the following Saturday, when the Master promised to be with us again and install our officers. We met at the time appointed, a good number being present, when we then proceeded to the election of officers, with the following result: M., N. D. Norris; O., Jos. Slack; L., Wm. T. Devries; S., Larkin S. Bennett; A. S., R. C. McKinney; C., Brice Shipley; T., Oliver P. Buckingham; Sec., Carrie Devries; G. K., Sam'l W. Barnett; P., Mattie R. Norris; F., Hannah Browne; C., Mrs. N. D. Norris; Lady Asst., Mrs. Susan Little. We then took a recess until half-past 1 o'clock for the purpose of lunch, and after partaking of the good things provided, at the appointed hour our Worthy State Master publicly installed our officers, a goodly number of visitors being present; after which he made another of those stirring addresses for which he is famous, making a deep impression upon all that heard it. Thus we have our wheels in motion again, with a prospect of good success in the future. N. D. NORRIS.

### Bee Notes for February.

Bees will require but little attention this month unless the season should be very forward, when they will require rye flour or buckwheat flour placed on empty combs and put in some sunny place out of the wind, where the bees can frequent it. A small quantity of honey should be fed at the entrance of the hives daily to stimulate breeding. The best way to feed is from some of the covered feeders. Be careful about robbing, and weak colonies. If a colony is queenless, unite it at once with a weak one having a queen. Don't attempt to carry queenless colonies.

Keep the packing about the hives this month, and where early queens are needed the colony should be selected you wish to breed from, and sparingly and regularly fed to stimulate to rearing early drones. If any stock have not honey enough, *now is the time to help them*, and when they *most need it*. In such cases candy placed on top the frames under the quilt will serve them, or the feeding box can be placed directly over the cluster of bees, and filled with honey or sugar syrup. As they are breeding rapidly this month look well to it that they have plenty of stores. Where the weather is cold and the bees are wintered in the cellar, or special depository, set them out whenever the weather is warm enough for them to fly, and at night return them to the cellar again. Be sure to place them on their summer stands when you set them out.

This is a good month to make hives and paint them; honey boxes can be got ready; foundation and bits of clean comb put in the sections, and all in position, and when the season comes, a little time will only be required to put the bees in working order, and you will be astonished to find how much you can accomplish during these long winter days. Save all the bits of comb and prunings from the hives, and convert it into wax if soiled and not fit to use in the sections; and with the many improved methods at our command, the wax can be quickly converted into foundation and returned to the bees. Keep the comb and cappings in some safe receptacle where the worms can't get at it, and when a favorable time offers melt it up.

As foundation is becoming such a desirable article in apiculture we must save every particle of wax we can, and thereby keep our stock good, or a scarcity of wax will cause a great rise in price of "foundation" and reduce our profits less on honey, unless its price should advance in a corresponding ratio. Some natural pollen will be gathered from the maple this month, and bees carrying it into their hives will be a safe guide to you that such a colony has a queen. Look well to the colonies then that carry no pollen, and see if they are not queenless. Every stock with a queen will have plenty of sealed brood and eggs the middle of this month, and where they are not found and there is plenty of honey in the hive they can be set down as queenless. L.

MR. E. B. EMORY calls our attention to an error in our last issue. The bulls 8th Duke of Vinewood and Imp. Wild Eyes of Connaught are not in use in his herd, but are owned by Mr. T. Cowan Anderson, of Kentucky. Calves by them will be for sale by Mr. Emory, who writes he has sold to Wm. F. Massey, Church Hill, Md., the b. c. Prince Sharon, by 8th Duke of Vinewood, dam Belle of Sharon, 3d, and that he expects soon to add to his herd by other purchases from Kentucky.

MR. R. S. EMORY, of Kent, writes us January 29, he finds enough peach buds alive on the water courses to make the crop a paying one, if not hurt later. Has seen no young wood killed.—Wood of raspberries and Wilson blackberries badly hurt, but not all killed. The dry Fall matured peach buds well, and there was a heavy set.

# The American Farmer.

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WM. B. SANDS, } - Editors and Publishers.

## SUBSCRIPTION:

\$1.50 a year, in advance. Clubs of five or more will be supplied at \$1 each. Any person sending ten names and \$10 will receive an extra copy free.

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Cover Pages subject to special contract. Transient Advertisements payable in advance—all others quarterly. Advertisements should reach us by the 27th of the month, to secure insertion in the succeeding issue.

BALTIMORE, FEBRUARY 1, 1881.

## Clubs and Renewals.

Our friends, we hope, will actively continue their canvass for securing new and renewing old subscriptions to the *American Farmer* for 1881. We think in the issues for the last and the present month we have demonstrated that there is no going back in the usefulness and practical value of the Old Pioneer, and our thanks are due and heartily extended to the many contributors who have helped us make up such valuable numbers. To those friends, too, who have exerted themselves in collecting and forwarding clubs, we express our grateful acknowledgments. The weather, by its severity, and the consequent difficulty of getting about in the country, has interfered somewhat with this work, but the present is a good time for its continuance, and we shall esteem it a favor to have the *Farmer's* claims and merits pressed upon the attention of the agricultural community everywhere by those who know by experience its worth and faithfulness.

CLUBS may be added to at any time at the club rate, and the names need not all be at the same post office.

FOR THE BENEFIT of our subscribers, we have made arrangement with Messrs. Lehmann and Mager, two chemists of reputation, the one for many years chemist and metallurgist of one of the largest metallurgical works in the United States, the other formerly chemist of the North Carolina Agricultural Experiment Station, to examine specimens of minerals, ores, marls, fertilizing materials and other substances, and answer through the *American Farmer* questions as to their composition, uses and values.

Any of our readers who desire information on such products or deposits, or who has any questions to meet in the practical application of chemical science, and who will forward specimens to this office, *expressage or postage prepaid*, will find replies in most cases in the succeeding issue.

Of course, in any case where a detailed determination, or quantitative analysis is required, our readers must communicate directly with the firm named, who will make a very moderate charge for their services, but for such opinions and examinations as we have indicated we invite specimens to be sent and inquiries made through us, when they will receive prompt attention.

## Another Importation of Percheron Horses.

It gives us great pleasure to announce that Mr. William T. Walters, of this city, having disposed of all the Percherons brought out by him in April last, is about to receive another lot, and the largest yet introduced by him, his farm manager, Mr. Stricker, having already gone abroad to supervise their shipment and accompany the horses from France.

The present purchase comprises twenty-one head—seven stallions and fourteen mares—which will start on their voyage on the 23d or 26th instant, and be due here about March 10th—in ample time for the horses to make the season. All of the horses, save one, were selected some weeks ago, and doubtless an animal of desired characteristics has been found by this time to fill the complement.

These horses will be representatives of a type not ordinarily found here. They are *true* Percherons, not Flemish and Belgian horses of inferior blood, such as have been largely sent to Western States, and of which one or two specimens are to be found in one nearer our own; but thoroughbreds, tracing clearly back to Arab progenitors, hardy, honest, docile, easily kept, yet spirited and stylish; and potent in trans.



mitting their good qualities to their descendants; not the least conspicuous amongst these qualities being the utter freedom from tendencies towards diseased feet and legs—in Perche such defects as ringbone and spavin being unknown.

The experience of Mr. Walters for fifteen years with these horses on our soil and in our climate is such that he does not hesitate to pronounce the Percheron the perfect horse; and his public spirited, indeed patriotic efforts to make him better known and more widely diffused deserve amplest recognition. With little interest in running and trotting horses, or roadsters, his attention was many years ago directed to the great and patent need in this country of a *draft* horse maturing early, of quick movement and endurance, united to size adapted to the demands upon him, with legs corresponding to his weight, and, above all, of a fixity of type certain to be perpetuated. During a four years' residence in France, in which frequent visits were made to Perche, including many walks through the district, he satisfied himself of the suitability to our needs here of its horses, and from their introduction by him, their easy acclimation, their hardiness and fitness to their surroundings, have developed this belief into demonstration; and the influence of his own importations and the attention attracted thereto and to the book of M. De Huys, translated by him, cannot be over-estimated, in providing us with a race of draft horses formerly wholly wanting, and the lack of which for purposes of trade and agriculture was every day and everywhere felt.

Mr. Walters long kept these horses on his own place, observing, studying in reality their characteristics and development in their new home; and, fully persuaded of their value, then began to disseminate them. Out of their introduction and dispersion he has not sought to make money, though of course he has not willingly encountered loss, and his liberal policy will have far reaching and enduring results.

In securing the services of a thoroughly competent and reliable agent to make all his purchases, Mr. Walters has been exceptionally fortunate, and as an evidence of the intelligent and painstaking scrutiny used in choosing specimens of the breed for him, we annex translations, kindly furnished us, of letters from this agent, who, holding a commission under the French government to inspect and buy horses for the cavalry and artillery service, knows every animal in his district.

Upon its arrival our readers may expect to

hear more in detail of this shipment, which includes some noble specimens.

[Translation.]

SEES, September 1, 1880.

I am very happy to learn that you found the horses I last sent you so very satisfactory. They certainly have one great merit, which is, that they are true Percherons, and not Boulonnais or Flemish. The pure Percheron descends directly from the Arab horse. This is an incontestable fact, and is proved by records found in the archives of the country. Every Percheron, therefore, should have in his conformation, in his appearance, the signs which recall his oriental origin. Unfortunately such horses are very rare, and our breeders of Perche, finding it easier to sell their horses for draught at higher prices in proportion simply to their weight and size, neglect to maintain their splendid race, and go even into Belgium to purchase large colts, which they raise in Perche and re-sell without trouble (*seen* to Americans) as Percherons, at enormous prices.

I have seen all the stallions recently purchased by Americans and embarked for New York, and I confess that among them were very few Percherons.

They were good draught horses, owing their origin to the northern districts alone, and assuredly incapable of producing or perpetuating a race to which they do not belong.

Yours respectfully, ADOLPH SIMON.

[Translation.]

SEES, October 4, 1880.

Dear Sir:

Yesterday I finished my round of inspection for the third quarter of 1880. I took advantage of my official trip to see the best Percheron horses of the region, in case you should decide to purchase.

Fine stallions are very rare; still I saw several it would be unfortunate to lose if you were likely to purchase. I found many excellent mares, much more numerous than the stallions. In all previous importations you have accepted only grey horses, because that is the robe of the primitive race. Would you be willing now to accept black or bay horses? The black coat is often found upon horses produced from grey-coated animals and does not always reproduce itself. Thus I have seen black horses give entirely grey ones and *vice versa*.

As for the bay horses, they are *always* the product of a cross with the blooded horse. In this case, therefore, it would be necessary to find what blooded horse it was—for if it were an Arab the crossing would only tend to confirm the race. Thus we have had in Perche the two stallions "Djedran" and "Emir," imported from the East, and who have transmitted their bay coats to their children and grandchildren.

If you follow out your project of a convoy for the month of February, it is now full time to act, for the Germans and Russians come each year in November to ransack Perche, and carry off the finest horses they can find, sacrificing volume and weight to distinction and gait.

Yours respectfully, ADOLPH SIMON.



(Translation.)

SEES, November 8, 1880.

Dear Mr. Walters:

In conformity with your dispatch of the 18th October, confirmed by your letter of the 19th, which I have just received, I will at once begin collecting the stallions and mares you desire.

You may rest assured that the convoy will be ready for the 15th February, 1881, at the latest. Therefore make your arrangements for embarking them at Havre on the day you select. Mr. Lucas can notify me, and the horses will arrive at Havre on the day named.

In choosing the stallions and mares I will govern myself by your instructions. I will pass by the so-called Percherons, but really born in Belgium or Flanders, and only raised in our country. I will select only animals of the true type, whose race and progenitors are well known to me, and who, therefore, will offer me a guarantee of reproducing their great race.

Having time before me, I hope to be able to select very fine horses, so that this convoy will please you in every particular.

I will only accept the *black coat* in case the horse presents qualities which it would be unfortunate to let pass.

Yours respectfully, ADOLPH SIMON.

### The "American Agricultural Association."

At the meeting, December 31, Mr. J. H. Reall, the originator of the movement, made an address, since published, explaining the reasons of its failure to go. He said he resigned the Secretaryship because he had not received proper sympathy and encouragement from those who should have given it unstintedly; that time and time again he proffered his services to its president, but that no means were provided for carrying on the work; and that the Journal, which was half in type, could not be printed. He said Hon. N. T. Sprague, who becomes president, is placed in that position because of his faithfulness to the organization, his large views, honest interest in American Agriculture, and his ability to fill the office!

### The United States Agricultural Society.

The attempted resuscitation, January 12th, of this old organization was a spiritless affair, leading, evidently, only to melancholy failure. Only about a score of persons were present—twenty-three by actual count, including reporters, lookers-on, attracted by curiosity, etc.—and nearly all, save a few from Maryland, residents of Washington, where the meeting was held.

The form of re-nominating and re-electing the old officers was drearily gone through with, and Dr. Loring, of Massachusetts, made an able, and Prof. Collier, of the Agricultural Department, a tiresome address, several other gentlemen who had been announced to speak declining, as it was done without their knowledge. No one seemed to have any program of proceedings, or any heart in them, and after referring to a committee the proposed union with the American Agricultural Association, the meeting gladly adjourned *sine die*—no nearer resurrected vitality than before.

We were much pleased to meet among the few present Col. Josiah W. Ware, of Clarke County, Va., now venerable in years, but still as active and bright, his natural force unabated, as when he was conspicuous and zealous in the meetings of agriculturists a quarter century ago.

OUR TERMS, it will be remembered, are \$1.50 for a single copy one year; five copies \$5, and to any one sending ten names and \$10, an extra copy will be sent *free*.

### Obituary.

*Whereas*, the Great Master has removed to another field our brother and faithful steward, the venerable Samuel H. Dorsett; and,

*Whereas*, his Christian zeal, his fidelity, his earnestness of purpose, courage in the discharge of duty, and sterling integrity, challenged the respect of honorable men, and enthroned him in the hearts of the brotherhood; therefore, resolved,

1. That All Hallow's Grange regards this loss of one of its staunchest pillars, one of its most manly and honest advisers, one of its most untiring workers, as irreparable.

2. That the whole community will miss a friend who never failed in need; that a good, useful and honest citizen is lost to the State.

3. That that most priceless of earthly monuments, which is reared of widows' and orphans' tears upon the grave of the kind and just, has marked his as the resting place of one whose practical friendship and unflinching sympathy wearied not when sorrow and trouble cast their shadows.

4. That our Worthy Master present a copy of these resolutions to the family of the deceased, to whom we tender our truest and most heartfelt sympathies in their trial and distress.

5. That the Secretary make proper record of our loss in the minutes of the Grange, and send copies of these resolutions to the Annapolis papers and *The American Farmer* for publication.

THOS. S. IGLEHART,  
Master All Hallow's Grange, No. 14.  
EDWIN A. DITTY, Secretary.

## Baltimore Markets—January 31.

**Breadstuffs.**—Flour. Steady but quiet. We quote: Howard Street Super \$3 25@3.75; do do Extra \$4 00@4.75; do do Family 5 10@6.00; Western Super \$3 25@3.75; do do Extra 4 00@4.75; do do Family 5 10@6.00; City Mills Super \$3 25@3.75; do do Extra 4 00@4.75; do do Rio brand Extra 6 12 @ 6.34; Winter Wheat patent Family 6 25 @ 7.00; Spring Wheat Family, clear, 5.00@5.25; Minnesota Patent Family 6.75@7.25; do do high grades 7.50@8.00. Fancy brands 7.00; Fine 2.50@3.00; Rye Flour 5 00 @5.25.

**Wheat.**—Southern steady, demand fair; Western active. We quote: No. 2 red cash 1 16@1 16 1/4, do do Feb. 1 16 1/4@1 16 1/4; do do March 1 18 1/4@1 18 1/4; do do April 1 19 1/4@1 19 1/4; do do May 1 19 1/4@1 20; Southern Fultz 1 16@1 18; do long-berry 1 21@1 25.

**Corn.**—Southern steady. Western quiet and barely steady. We quote: Western mixed cash 53 1/2 @ 53 1/2 cts.; do do Feb. 53 1/2 @ 53 1/2 cts.; do do March 53 1/2 @ 53 1/2 cts.; do do April — @ — cts.; do steamer cash 50 1/2 cts.; Southern white 53 cts.; do yellow 53 cts.

**Oats.**—Dull and heavy. We quote as follows, viz: Western mixed and stained 40@41 cts.; do bright 42 1/2 cts.; do white 43 cts.

**Rye.**—We quote good to prime at 101@103 cts. ♡ bus.

**Cotton.**—Dull and heavy, though for spots prices remain steady. We quote as follows for spots, viz: Middling 11 1/2 cts.; Low Middling 11@11 1/4 cts.; Strict Good Ordinary 10 1/2 @ 10 3/4 cts.; Good Ordinary 10 1/4 @ 10 1/2 cts.

**Hay and Straw.**—Western Hay, receipts of which continue liberal, is dull and heavy, but of other kinds the supply is light and the market steady. We quote: Hay—Cecil County Timothy \$2 1/2 @ 2 1/2; do Md. and Pa. do \$2 1/2 @ 2 1/2; do Western do \$2 1/2 @ 2 1/2; do mixed \$1 9 @ 2 1/2; do Clover \$1 9 @ 2 1/2. Straw—Wheat \$1 1 @ 1 1/2; do Oat \$1 5; do Rye, straight \$2 1 @ 2 1/2.

**Mill Feed.**—We quote City in good demand and firm at \$20 for middlings, and \$20@21 for brownstuff, and Western bran at \$18.50 ♡ ton.

**Provisions.**—Firm and active. We quote: Bulk Shoulders, packed, new 5 1/2 cts.; do L. C. Sides do do 7 1/4 cts.; do C. R. Sides do do 8 cts.; Bacon Shoulders 6 1/4 cts.; do C. R. Sides 8 1/4 cts.; do Ham, sugar cured, new, 10 1/2 @ 11 1/4 cts.; do Shoulders do 7 1/4 @ 7 1/4 cts.; do Breasts do 5 1/4 @ 5 1/4 cts.; Lard, Refined, tierces, 10@10 1/4 cts.; Mess Pork, old, ♡ brl., \$13.75; do new, ♡ brl., \$15.00. **Dressed Hogs.**—Firm and in demand at \$6 75@7.00 ♡ 100 lbs. **Butter.**—There is an improved demand for choice Butter, both roll and solid-packed, but light colored and poor roll is dull. Receipts are light and prices are quite firmly maintained. We quote: N. Y. State, choice tubs, 28@30 cts.; do do firkins 27@29 cts.; Creamery choice 30@32 cts.; do fresh tubs, 22@24 cts.; do good to prime, 18@20 cts.; nearby receipts, 21@23 cts. **Cheese.**—We quote as follows: N. Y. State, choice, 14 cts.; do do good to prime 12@13 1/2; Western choice, 13@13 1/2; do good to prime, 12 @ 12 1/2 cts. **Eggs.**—Fresh we quote from 40@45 cts. ♡ dozen, according to the exigencies of buyers. **Poultry.**—Scarce and firm, and we quote for dressed, viz: Turkeys at 13@14 cts.; Chickens, 10@12 cts.; Ducks, 10@12 cts.; Geese 8@10 cts. for undrawn, and 1 to 2 cts. ♡ lb. higher for drawn.

**Live Stock.**—**Beef Cattle.**—Fairly active. We quote prices at to-day's market, as follows: Best on sale \$5 25@5.90; generally rated first-class, \$4 50@5.25; medium or good fair quality, \$3 50@4.50; ordinary thin steers, oxen and cows, \$2.50@3.25. **Milk Cows.**—Dull at \$35@45 per head according to quality. **Hogs.**—Steady at 7@8 cts. ♡ lb. net. **Sheep.**—Active, selling at 3 1/2 @ 4 cts. ♡ lb. gross.


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IN OUR NOTICE last month of that admirable home paper, the *Youth's Companion*, we made a mistake in the name of the publishers, which is Perry, Mason & Co., Boston.

SEVERAL ARTICLES received for this number are crowded out.



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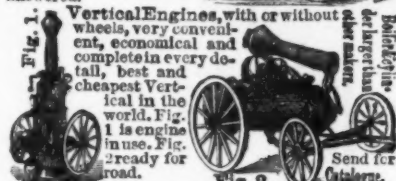


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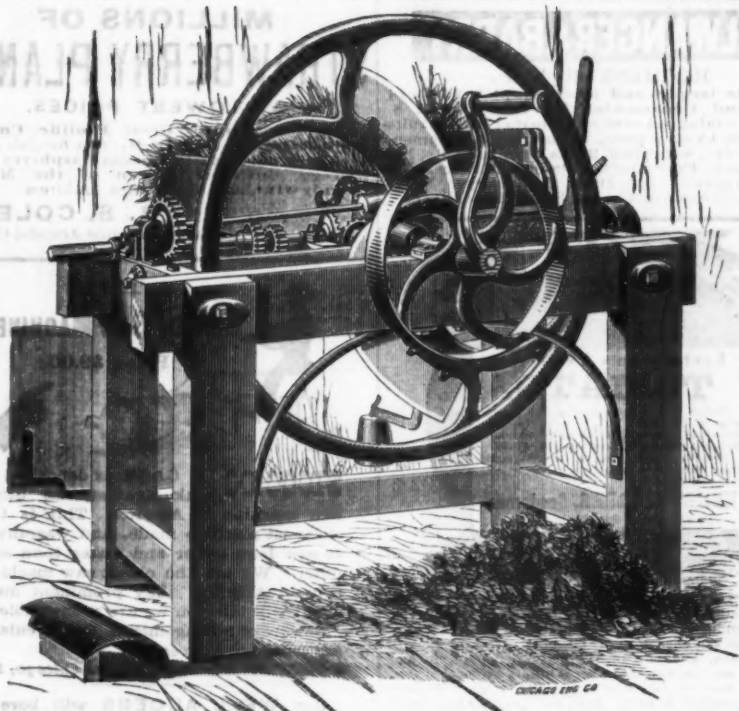
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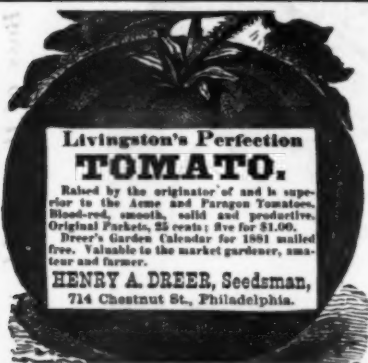
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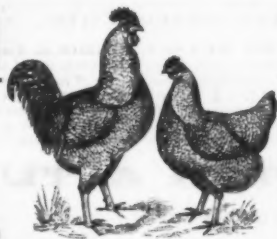
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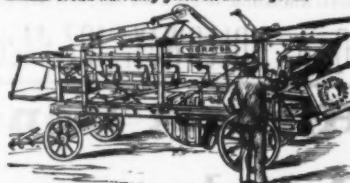
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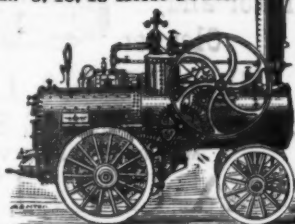
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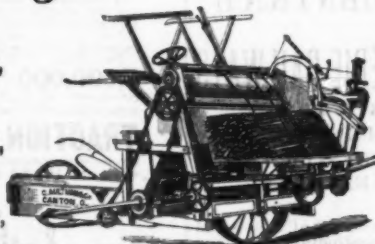
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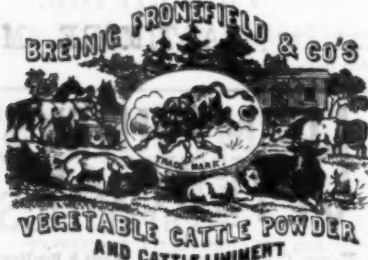
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It is made of the best and most concentrated materials, possesses all the virtues of PERUVIAN GUANO and BONE-DUST combined, and is well adapted to Wheat, Corn, Oats, &c., producing abundant crops where all others fail. Having a large percentage of Soluble and Precipitated Phosphoric Acid and Ammonia, it is without doubt the richest Commercial Fertilizer in the country.

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Made only of Slaughter-house Bones, contains a larger percentage of AMMONIA and BONE PHOSPHATE LIME than any other brand in the market. WE OFFER

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*The Best Article in the Market*

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It is richer in Soluble Phosphoric Acid and Ammonia than any similar article in the market.

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AMMONIATED BONE SUPER-PHOSPHATE.**



Composed of the most concentrated materials, it is

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Than any other fertilizer sold, except **OUR EXCELSIOR**, and is made with the same care and supervision, uniform quality guaranteed: Fine and dry, in excellent order for drilling. We have also a very superior quality of

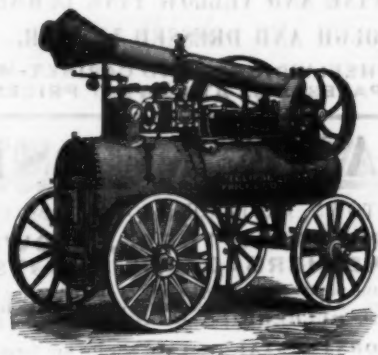
**PURE DISSOLVED BONES,**

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*We are now offering to the Trade the following **WELL-KNOWN BRANDS OF GOODS**, which we guarantee fully up to the Standard:*

SLINGLUFF'S  
**DISSOLVED GROUND BONE,**

Containing 3 per cent. of Ammonia.

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Containing 40 to 44 per cent. Soluble Bone Phosphate.

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Containing 28 to 32 per cent. Soluble Bone Phosphate.

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Also, **SLINGLUFF'S No. 1 AMMONIATED SUPER-PHOSPHATE.** This we can confidently recommend as one of the best fertilizers sold in the market at a low price.

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